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*Beams, A. J., and Endicott, E. T., Histologic changes in the livers of patients with cirrhosis treated with methionine, Gastroenterology 9:718-735 (Dec.) 1947.

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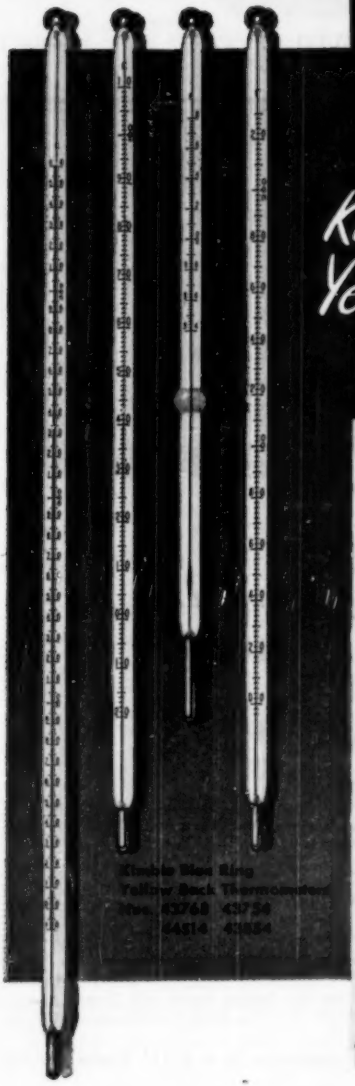

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Volume 39 — **January, 1949** — **Number 1**

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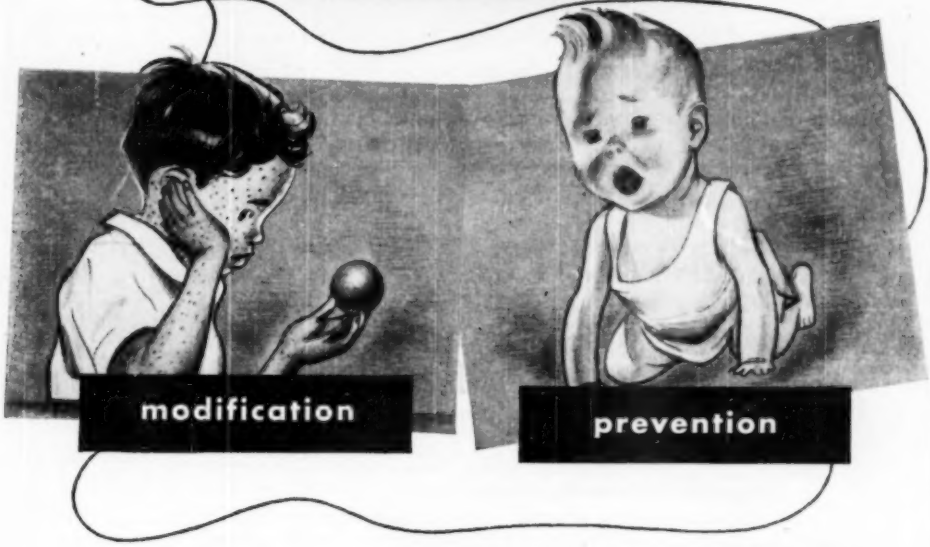

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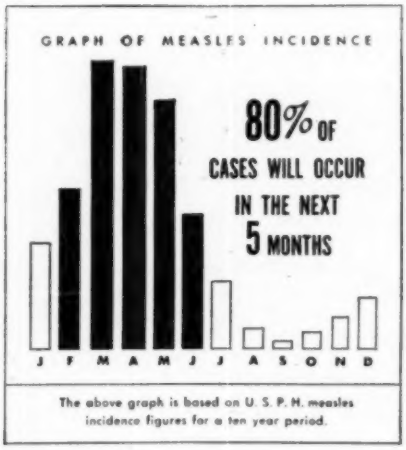
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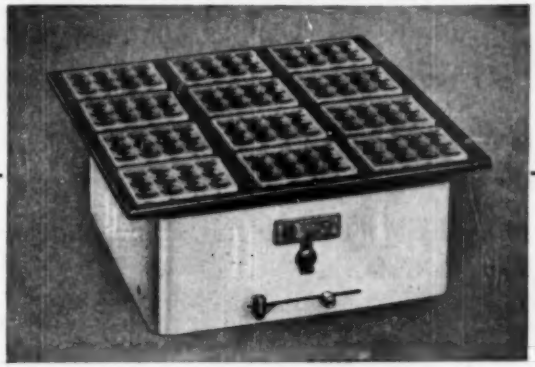

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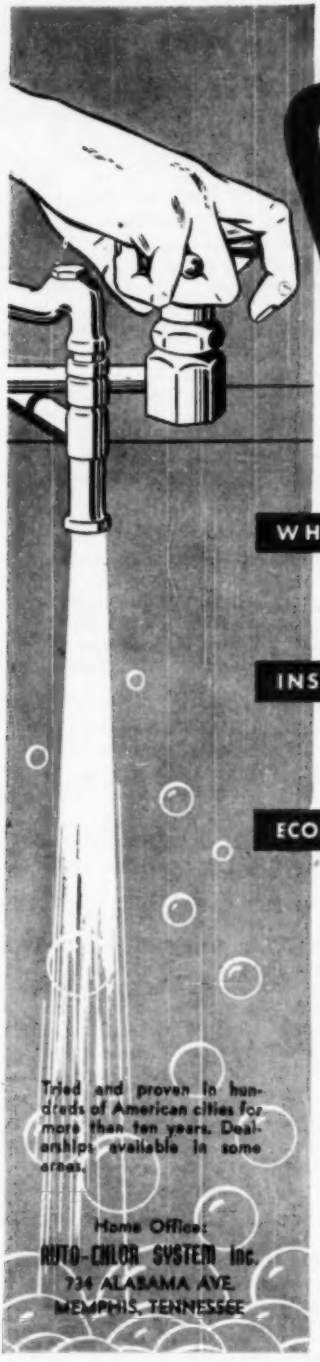

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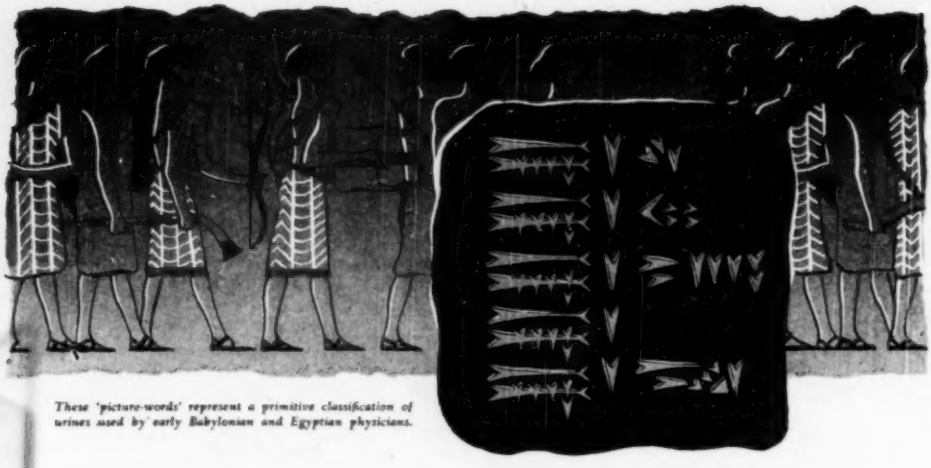

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The tables show the well balanced nutrient contributions of the cereal* serving and the basic breakfast pattern. Economy, tastefulness, and variety characterize both of them.

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Sugar, 1 teaspoon;	PHOSPHORUS	488 mg.	206 mg.
Toast (enriched, white), 2 slices;	IRON	3 mg.	1.6 mg.
Butter, 5 Gm. (about 1 teaspoon);	VITAMIN A	1074 I. U.	193 I. U.
Whole Milk, 8 fl. oz.	THIAMINE	0.52 mg.	0.17 mg.
	RIBOFLAVIN	0.87 mg.	0.24 mg.
	NIACIN	2.3 mg.	1.4 mg.
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*Composite average of all breakfast cereals on dry weight basis.

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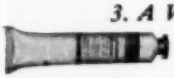

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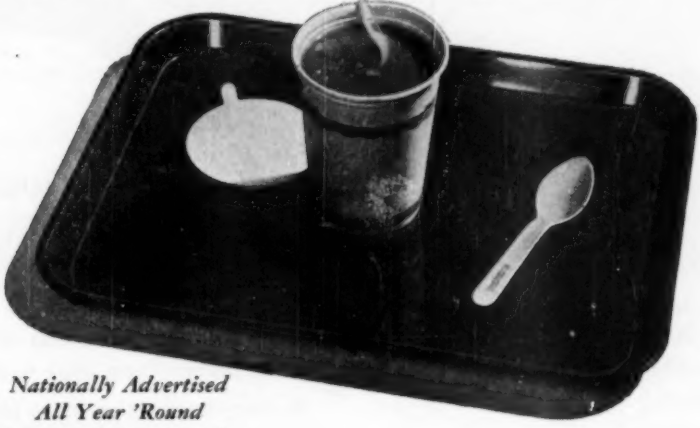

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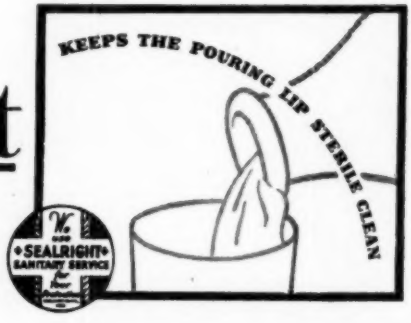

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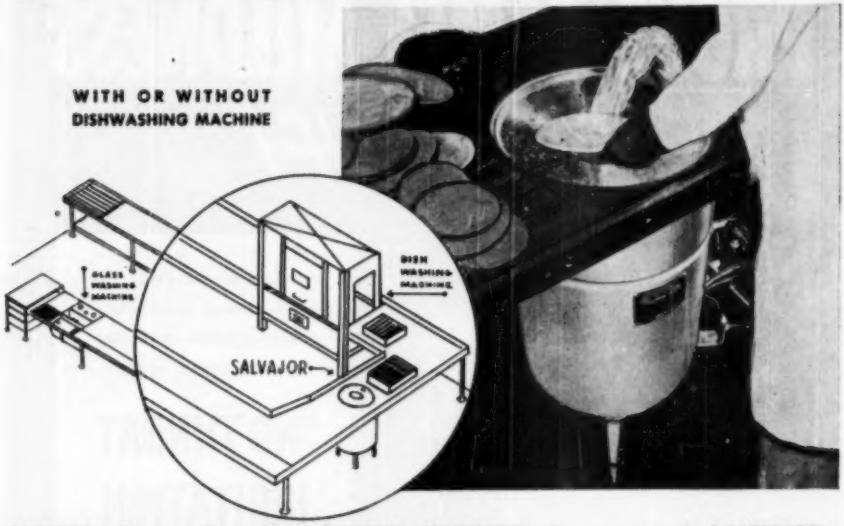

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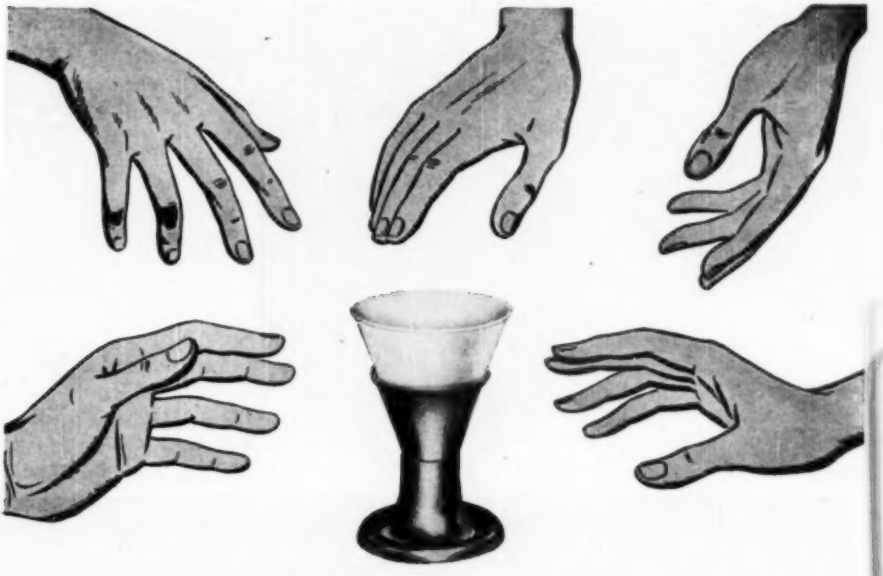

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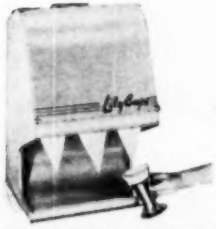

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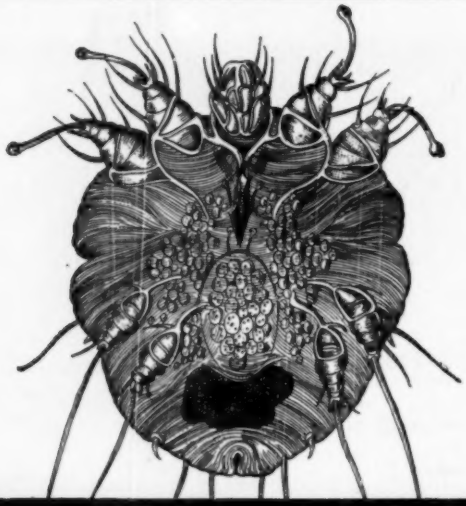

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1. Mackenzie, I. F.: Brit. M. J. 2:403, 1941.

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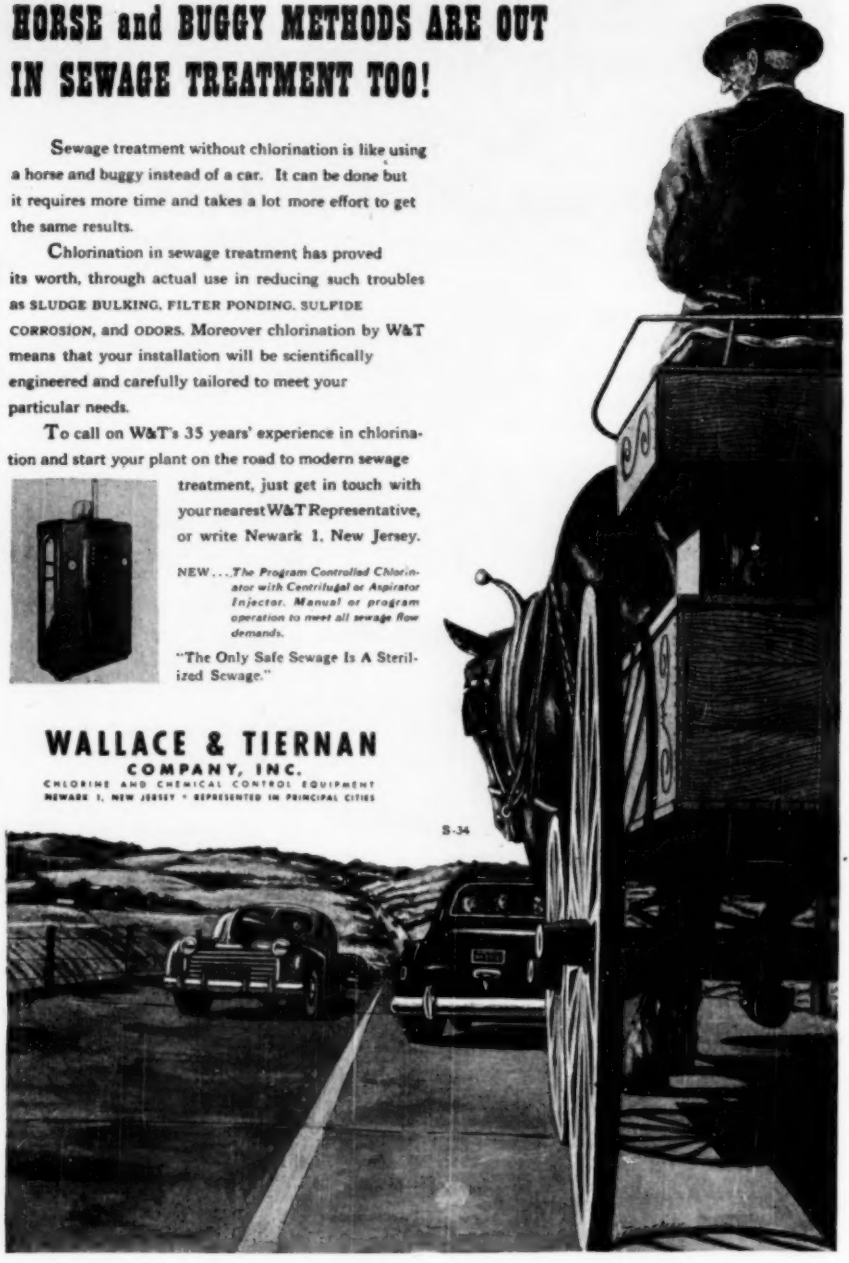

American Journal of Public Health
and THE NATION'S HEALTH

Volume 39 January, 1949 Number 1

High Points of the Boston Meeting

An Informal Symposium*

CHAIRMAN, DR. R. M. ATWATER: I wish you to know that this is not a rehearsed program, but one which brings you, in a conversational tone of voice as it were, the experience of those who attended each of the sessions and who have been in a position to watch for highlights as they came along. Each of these persons has been asked to present what in his opinion are the highlights of the Section or special interest with which he is identified, and we are going to begin with a representative of the Food and Nutrition Section. The speaker is Dr. Stare, Professor of Nutrition at the Harvard School of Public Health here in Boston.

DR. F. J. STARE: In my opinion, the *pièce de résistance* in the meetings of the Food and Nutrition Section was a symposium yesterday morning on Nutrition and Resistance to Disease, and I think the highlight of that Section was the paper by Dr. Howard Schneider of the Rockefeller Institute.

The nutritional state of the host plays a significant rôle in determining resistance or susceptibility to infection, but it is difficult to demonstrate such effects experimentally or to attribute unequivocally the effects observed to specific nutrients. For the last several years, Dr. Schneider has been doing excellent work on the problem, using mouse typhoid as a test problem. Well aware of the many environmental patterns and characteristics which might tend to condition the results of his experiments, he has painstakingly used extremely rigid controls. He has demonstrated that mice receiving a "natural diet" were more resistant to mouse typhoid than those receiving a so-called "synthetic diet," in which all nutrients were well defined. Survival rates ran as high as 25 per cent higher in the animals receiving a natural diet.

Increased resistance to infection in Dr. Schneider's mice was reproducible in groups of mice receiving the diets containing whole wheat only if the mice were derived from strains which were genetically heterozygous, in other words, mixed strains. Such resistance could not be demonstrated in mice which, by strict in-breeding, had been made more nearly homozygous.

Continuing his studies further, Dr. Schneider has shown that the character of the bacterial population is also im-

* A slightly condensed transcription of informal oral presentation at a symposium held at the meeting of the American Public Health Association in Boston on November 12, 1948.

The speakers have not had the opportunity of correcting their statements in final form.

portant in regard to the effect of a component of the diet on resistance to infection. It can be demonstrated better if a mixed strain of the organism, not a pure strain, is used.

Thus, in this particular host-pathogen relationship, it has been shown that to demonstrate an effect of diet, it was necessary to have: (1) a host population that was genetically heterozygous, and (2) a bacterial culture of varied composition. These conditions, essential for the dietary effect observed here, are precisely those which prevail in practice in the world at large, namely, mixed infections and mixed populations.

The nature of the substance in whole wheat which is effective in increasing survival rates of mice to mouse typhoid has not yet been ascertained.

CHAIRMAN ATWATER: Thank you, Dr. Stare. Before you go away from the microphone, let me ask whether there were other papers on the program that struck you, as a representative of Food and Nutrition, as having particular interest, I mean, those that conceivably concerned personnel and personnel practices and recruitment and finance and all those basic things that are common to us all.

DR. STARE: Yes, another section that was particularly interesting was a section devoted to the techniques and the problems involved in teaching nutrition to medical officers and other types of public health officials.

CHAIRMAN ATWATER: For the second participant, we are going to ask the chairman of the Standing Committee on Research and Standards, Dr. Thomas Francis, Jr., to report on the highlights of the work of the Standing Committee. Dr. Francis, in his regular capacity, is Professor of Epidemiology at the University of Michigan School of Public Health in Ann Arbor. His Standing Committee covers not only the standards on milk and water and sewage and bathing places, shellfish, and other standards of the Association, but a whole area of research which includes the New Coördinating Committee on Laboratory Methods.

DR. THOMAS FRANCIS: Dr. Atwater, I would like to say, before reporting on the activities of the Research and Standards Committee and its highlights, that perhaps the highest light of the entire meeting was, to me, the group which is here this afternoon. There is an old saying that the mind can only absorb what the seat can endure, and I think that the fact that the thirst for knowledge is as great as it is this afternoon is a real tribute to our Association.

The other outstanding thing is the high caliber and critical nature and scientific level of the papers which have been presented on most of the programs that I have had the privilege to attend.

I think it has been a very unusual opportunity even for those who are actively interested in biological research. It has been my privilege, and I appreciated it more the last few days than ever before, to serve as chairman of a committee made up of members who have astounded me with their energy and initiative and the enthusiasm with which they do things.

Under the Committee on Research and Standards, we have one large committee, the Coördinating Committee on Laboratory Methods, which was previously a sectional committee that for many years functioned very effectively under the Laboratory Section. But because of the increasing scope of its work and because of the increasing need for a coördinating committee on other levels, it was made a part of the Committee on Research and Standards.

The activities of this committee have been of outstanding significance during this past year. They have resulted in the publication of a new edition of *Standard Methods for the Examination of Dairy Products,* which has already had a wide sale; of the first book of its

kind, *Diagnostic Procedures in Virus and Rickettsial Diseases*. The committee has displayed increased activity relating to the sanitary examination of food utensils. It has dealt with the continued work of Dr. Winslow and his committee and his associates in the hygiene of housing, a field which has been remarkably progressive and to which they have made handsome contributions.

The third subcommittee that I would like to mention is that on the control of communicable diseases. As you will realize, the pamphlet or small booklet which has been published, now getting ready for its 7th edition, under the auspices of the Committee on Research and Standards and under the active direction of Dr. Haven Emerson, has become really a standard book throughout the world. The last edition, that of 1945, was translated into at least six foreign languages. It has become so accepted as an authority in the review of the problems of communicable diseases that the World Health Organization is actively interested in it. A meeting which has been held during the last week was devoted to revising the report, bringing it up to date with the help of several overseas advisers.

I think it is a splendid thing that something which has grown up within this Association should continue to grow and prove to be such a remarkable contribution not only to the administrative aspects but to the basic scientific aspects of the control of communicable disease.

There are numerous other activities which have continued under this committee but there are a few new ones that are just burgeoning, such as the group representing members of several different associations on the Subcommittee on Air Sanitation. Dr. Alexander D. Langmuir has been asked to serve as chairman of this committee, and they held an organizational committee meeting this week.

I would like also to mention the activities of some of the referees appointed when problems are referred to the Research and Standards Committee as a critical and impartial body. As an example of this type of thing I should like to mention the report of the Referee, Dr. Burgdorf, upon problems involved in isolation hospitals—a very instructive preliminary report which we have asked to have published immediately in the *American Journal of Public Health* because of its application to new developments in medical care and hospital building and management. Then we have referred the problem of dental caries which was discussed a year ago, to a committee who again asked a referee to review the data, and to make a continuing review and survey of that problem.

CHAIRMAN ATWATER: I never hear the recounting of those new activities without a thrill.

I am grateful to Dr. Francis for having summarized so briefly. He has spent many heavy hours with these committees and subcommittees and coördinating groups, and we members of the Association ought to be appreciative of this service that is so generously rendered by persons like Dr. Francis and other committee chairmen and committee members.

We will turn now to a representative from the School Health Section, and I am asking Dr. Dorothy Nyswander, Professor of Health Education at the University of California School of Public Health in Berkeley, Calif., interested in the school health problem, editor of one of the best books on that subject, *Solving School Health Problems*, to tell us what the highlights were in that section.

DR. NYSWANDER: Mr. and Mrs. A.P.H.A., your roving woman reporter has attended every session of the School Health Section, which is one of the younger children of your family. She reports as follows:

Prognosis: every indication of better than average development. You, Mr. and Mrs. A.P.H.A., can look forward to having an offspring which will contribute increasingly to maintain your high standard of professional living and be a strength in your old age.

Plans were formulated by the Section Council to bring as many as possible of the 334 members into active participation on two research projects, using consultant advice from other Sections of the Association. The membership of the Section reflects a broad interest in the health of school children. Voluntary agencies, state departments of health, state departments of education, local health departments, local school boards, colleges and universities are well represented in our membership.

Mr. and Mrs. A.P.H.A., did you see the special exhibit of school health materials developed by the Section as part of the National Publicity Council's offering? If not, you have missed something.

Prediction No. 1: I predict that the School Health Section has set a pattern which will be followed by other Sections in bringing together for display and study during the annual convention the newest and best of materials developed on federal, state, and local levels in their respective fields.

We held round tables on three problems—(1) the Nature of School Health Councils; (2) inservice training counsel in health education for teachers; (3) techniques of counseling children with health problems—and kept eager-beaver participants busy for an entire day. Your reporter noted that participants from at least five other Sections came early and stayed late at these round tables. Your reporter saw skillful use of various discussion techniques, including rôle playing, to get concrete situations for analysis by the groups.

What is the difference between giving health advice to parents and children and acting as a health counselor to them? The group was motivated to spell out this difference after hearing this story:

A teacher had asked for short essays about Socrates. One boy handed in these three cryptic sentences.

"Socrates was a Greek.

"Socrates went around giving advice to people.

"Socrates was given poison by the people."

School Health Councils are not established by decree of either school or health department administrators. They are outgrowths of the needs of real people coming to recognize that real health problems demand that many people, including students, analyze the problems and take action together in solving them.

The lecture method of inservice health education for teachers is probably the least effective of the many ways of helping teachers understand the children's needs. The workshop and the clinical case-study methods rank high.

Prediction No. 2: I predict that the round table discussion method for national convention programs will be adopted by other Sections, and I predict further that, unless other sections invest in exploring new methods of group work in their Sections, these Sections will find some of their members transferring to the School Health Section.

Research is fundamental to sound administrative practice in any field. New research related to the health problems of the school-age child at this meeting must be given serious consideration by those responsible for school health programs.

Therefore, *Prediction No. 3:* I predict, Mr. and Mrs. A.P.H.A., that within the next few years, we will see new policies regarding absenteeism from school because of illness and more intelligent use of the information about the causes of such illnesses by teachers and nurses in their work with children.

I predict further that when the evaluation of various audiometric testing procedures for school children is completed, we will see drastic revision of hearing testing programs throughout this country, based on the research presented at one of the Section meetings.

Mr. and Mrs. A.P.H.A., the physically handicapped child has taken a beating for many years. His well-wishers have oftentimes done him as much harm as the people who forgot that he existed. I call to your attention the booklet *Children with Special Health Problems,* which was highlighted in one of our joint sessions. You can obtain it from your local Tuberculosis and Health Association. The School Health Section is proud to have participated in a program in which medicine and education have agreed upon the fundamental principles relating to the care of the physically handicapped child.

Prediction No. 4: I predict that many outmoded ideas and practices pertaining to the physically handicapped child in our schools will disappear wherever active members of the family of Mr. and Mrs. A.P.H.A. take to heart the fundamental concepts presented at this national meeting and embodied in the bulletin *Children with Special Health Problems.*

My informants tell me that the school health program can only be successful when its various parts and its total structure evolve from the thinking and action of many agencies. Kansas reported a study of coöperative effort along these lines which should be read by every member of your family who works in a rural area. Minneapolis reported an exciting venture in two demonstration schools of putting theory into practice. The president of the National Conference for Coöperation in Health Education laid on the line the purposes and accomplishments of this Conference during the past ten years. The Joint Committee of the National Education Association and the American Medical Association reviewed scientifically the principles jointly arrived at in making health appraisals of school children. The guide lines as to the fields in which coöperative endeavors are possible and valuable are ours to follow.

Fifth and final Prediction: I predict that the future will see no substantial forward-looking program of health services or health instruction developed in any city or county of this country which is not an outcome of the coöperative effort of workers in education and health departments, together with their colleagues in the voluntary health agencies and the professional associations.

Signing off until October, 1949, New York City, when we will again give you the latest developments in school health programs.

CHAIRMAN ATWATER: We are moving now to the spokesman for the Industrial Hygiene Section, and I am asking Mr. J. J. Bloomfield of the U. S. Public Health Service, Division of Industrial Hygiene, to report on the highlights there.

Mr. Bloomfield has served on two occasions as secretary of the Industrial Hygiene Section and has also been chairman of that Section. He is a competent observer.

J. J. BLOOMFIELD: The first meeting of the American Public Health Association which it was my privilege to attend was right here in Boston in 1923, twenty-five years ago.

It seems to me that industrial hygiene in my own quarter of a century experience has gone a long way. In the early days, the field of industrial hygiene was a very limited one. We were concerned with finding out the basic fundamentals, investigating and evaluating the strictly occupational diseases. We were then concerned primarily in learning about the etiology of some of these diseases, such as silicosis, about which we knew very little at that time.

Today, we are concerning ourselves with such things as carcinogenic agents in the industrial environment and maximum allowable concentrations of hazardout substances. A host of chemicals have come into play during the past twenty or twenty-five years, for example, ionizing radiation, which is such an important issue, the discovery of new diseases, such as Shavers' disease, and many other new problems that have come in the wake of industrial progress and technological advance.

CHAIRMAN ATWATER: Would you mind telling us what the disease is that you mentioned just now?

MR. BLOOMFIELD: Shavers' disease is not a disease caused by shaving. It is named after Dr. Shaver, who first reported it in Kansas, and is caused by exposure to very fine dust created in the process of converting bauxite in the aluminum industry. It seems that this very fine dust, when inhaled over a certain period of years, causes silicon damage to the lungs. The greatly widened breadth and scope of our field is not only reflected in the quantitative and qualitative character of our work but also in the increasing recognition which it is receiving. A few years ago, only a few organizations—the U. S. Public Health Service, the U. S. Bureau of Mines, the newly created Department of Industrial Hygiene at the Harvard School of Public Health, and a sprinkling of states—were concerning themselves with industrial hygiene problems. Today we have industrial hygiene divisions in practically every state of the Union, in large cities and counties, in large industries with their own research and control departments, in insurance companies, and in a host of other organizations.

Industrial hygiene has indeed grown with the times. It has attained a "new look" along with our fashions. Originally we were concerned with the health of the worker exposed to mercury and lead and silica and so on, and to an increasing array of various chemicals and processes. Today we are even concerned with agriculture. We heard an excellent paper by Dr. Axelrod on the work he conducted among the farmers. Perhaps you think it is strange that industrial hygienists should be concerning themselves with the agricultural population, but farming in this country has become a large industry. We have more than 8,000,000 people in that industry. The farmer is using many machines, insecticides that are poisonous and many other substances that are injurious to health. The migratory farmer is especially subject to disease because of his transitory life and his lack of sanitation facilities; plans are now under way to solve some of the problems among those workers.

On the overall scene, there is a keener appreciation of the importance of the worker's health. The preservation and maintenance of industrial health has various implications. To management it means greater profits and new outlets. To the worker it means employment and a higher standard of living. To the consumer, to you ladies and gentlemen, of course, it means new gadgets and luxuries, television, and other modern inventions. But to the industrial hygienist, technological developments mean headaches because of the potential hazards inherent in new substances and processes, as, for example, radiation energy, new solvents and plastics.

World War II gave impetus to the adoption of a new concept of the "total man." Previously, we had attempted to disassociate the man in his working environment from his home and community environment. The health of the worker during his eight hours on the job seemed to be the sole concern of the industrialist. If he picked up a pneumonia germ somewhere outside of the factory, well, that was too bad for the worker. Industry was not concerned. The war production race, however, with its stress on man power conservation,

revealed that the worker's illness, regardless of its origin, was always costly to management. Sickness absenteeism was expensive in terms of unfilled orders, necessary substitutions and other considerations. Yielding to the pressure of circumstance, the field of industrial hygiene broadened and is continuously expanding to meet the needs of the times. That is why, yesterday, at our joint session with the Medical Care Section, you heard some papers on medical care and the rôle of the industrial hygienist in medical care. This is the result of labor's vociferous cry for adequate medical care for themselves and their families and of management's increasing recognition of the values and economic practicality of such services.

There are still other problems which we must objectively look at and scrutinize and take stock of.

Those of you who were at the joint session of the health officers heard the facts in Dr. Selby's excellent paper in which he pointed out that within his own organization, he had data on more than 300,000 workers, that the most important problems were in the field of rheumatism, arthritis, heart ailments, cancer, and diabetes. These are the chief killers today, and I say to you that industrial hygiene offers a rare opportunity to make an attack on these diseases.

The work of the industrial hygienist is necessarily a team work operation, cutting across all lines. Although he plays a distinct and specialized rôle in the field, he may still serve his colleagues by acting as a spearhead to bring their services to industry's doors. I hope that you will let the industrial hygienist help you to do your job and that you will lend him your assistance with his, so that we can all exert the effort we need toward the preservation and maintenance of public health.

CHAIRMAN ATWATER: Our next spokesman is Dr. Leroy E. Burney, State Health Officer of Indiana and Chairman of the Subcommittee on Personnel Administration.

DR. L. E. BURNEY: The very fine report that Dr. Nyswander gave and the interesting manner in which it was presented merely confirms the conclusion that we have a great deal to learn from health educators.

Recruitment of personnel is the most acute problem facing the public health professions. It is not enough, however, just to recruit personnel. We must utilize all methods available to select qualified personnel. The Merit System Service of the American Public Health Association was established in 1941 to aid in this problem. Its activities have been directed toward developing written examinations for the various categories of professional public health workers.

This has been done with the aid of consultants in medicine, nursing, engineering, veterinary medicine, and other public health groups. Psychologists, psychometricians, and statisticians working closely with subject-matter specialists, construct the test items, develop examinations and their capacity to determine the skills and potentialities of the examinee. The development of these examinations is a dynamic one; a continual effort is made to exclude poor items and establish new and better ones.

It is especially significant that this program has been developed by the organization representing the professional public health workers of our country. It is not dictated by any governmental group. Its consultants and reviewers are recognized practical experts in the various fields of public health and work under the guidance and advice of a voluntary committee of members of the American Public Health Association and outstanding leaders in the personnel field.

Interest in this Merit System Service is most encouraging. At the special session on Thursday morning, the largest crowd ever to attend a discussion on

this subject was present. Most of the group of approximately 300 remained for the duration of the three hour meeting. The life story of an examination for public health workers was the theme. The testimonial of three examinees: health officer, nurse, and engineer was especially interesting, and Dr. Neupert, the Health Officer of Wisconsin, presented a splendid discussion of the program from the administrator's viewpoint.

The exhibit at this convention has been a most popular one. Approximately 450 people have taken an average of two of the six tests available. Noteworthy is the fact that, although a few of the individual items have been criticised, almost everyone has expressed his enjoyment in taking the examination and has approved the technique.

Let us remember that this is a program of our own organization, the American Public Health Association, in an effort to help us solve the problem of intelligent selection of personnel. Understanding and support are required of each one of us to make this splendid effort a continuing success.

I for one would like to commend very heartily the very fine work that Dr. Long, Mr. Frasher, and other members of the staff of the Merit System Service are giving in this program.

CHAIRMAN ATWATER: Again it is a pleasure to see how the interests of the American Public Health Association have broadened to include an area which a few years ago was not represented in the Association structure.

Our next speaker is the representative of the Epidemiology Section, Dr. Thomas D. Dublin, who has recently become the Executive Director of the National Health Council in New York. He speaks for the Epidemiology Section.

DR. T. D. DUBLIN: In trying to gather my thoughts together in preparation for this presentation, I suddenly realized that by seeking the highest points I was losing sight of the mountain range, if you will, that these programs represented. The quality of the presentations was in my opinion, and in that of many others with whom I have spoken, unusually high. It would be difficult to single out any one, or, any few as particularly outstanding. The most impressive thing in this annual meeting, and particularly as it relates to the Epidemiology Section, is the broad perspective, the broad panorama which is now being included in the Section meetings.

It is particularly interesting to me to see how so many people from so many diverse fields are making significant contributions to the solution of problems which we have included in our discussion in the Epidemiology Section: men from the laboratory, from the field, from administrative positions, all have come together in this Section and have contributed a multiplicity of perspectives to our understanding of the problems which are under consideration. At the first session on influenza, a large group of individuals, six different groups of workers, each representing a different part of the country, a different laboratory, a different area or field of investigation or administrative problem, in fact, even a representative from the international field, attempted, and very successfully, to throw light upon this very difficult and important problem.

Similarly, in our concluding session this morning we considered a new disease, or rather, a disease just recently recognized in this country, that of "Q" fever, an infection which in a very brief period of time has been widely and carefully studied. It is, I think, a source of real gratification to see how so much has been learned of significance in dealing with a disease, unrecognized and unfamiliar to most of us, in a relatively short period of time.

In these and other sessions, the laboratory man, the field worker, the admin-

istrator, the educator, and various others had significant contributions to make to the solution of chronic disease problems, cancer, diabetes, tuberculosis, histoplasmosis, the dysenteries, air-borne infections, syphilis and gonorrhea.

In summary, I would say that to me the high light of this Section was not only the unusual quality of the presentations and their broad perspective of epidemiology, but rather that these sessions, particularly this year, emphasize how important it is for us to meet at least annually to merge our interests, to discuss common problems, and to throw all of our energies and efforts into the study and the working out of methods for the control of those disease and health problems with which we are all confronted.

CHAIRMAN ATWATER: The next speaker is Dr. Vlado Getting, well known to you as Massachusetts State Commissioner of Public Health. In this connection he speaks in his capacity as Chairman of the Committee on Eligibility of the American Public Health Association.

DR. VLADO GETTING: The Committee on Eligibility consists of one Fellow from each Section plus a chairman elected by the Executive Board. Its function is to pass upon the applications of Fellows, of members, of Life Members, to pass upon the application of state societies which wish to be affiliated with this organization, and to make recommendations relative to the election of Honorary Fellows.

Our organization has grown this year very satisfactorily. There are now over 11,500 members and Fellows. This year we have added 164 Life Members. This was as a result of the fact that the new Life Membership dues became effective January 1. Even at the present rate of $200, Life Membership is a bargain, and I recommend it to each of you, especially for Fellows, who receive a 6 per cent yield on an investment for the first 17 years, after which it costs them nothing.

Two hundred and fifty new Fellows have been added to our list. The number of new members has not been quite as large as previously, but over 1,200 were added. Two new state societies have become affiliated with this organization, those of Minnesota and Washington.

Finally, the committee had the privilege of recommending for election as Honorary Fellows three well known individuals: Dr. V. Mary Crosse of England, known to all of us for her work on prematurity; Dr. Brock Chisholm of Canada, now Director General of the World Health Organization; and Dr. Karl Evang of Norway, who is chief of the Norwegian Public Health Service.

The Committee on Eligibility wishes to call to the attention of qualified members that they should seriously consider becoming Fellows and taking advantage of the privileges offered to Fellows.

CHAIRMAN ATWATER: Our next speaker, Mr. James Gibbard, who is Chief of the Laboratory of Hygiene, Department of National Health and Welfare, Ottawa, Canada, is a seasoned representative of the Laboratory Section.

JAMES GIBBARD: I think one of the highlights from the standpoint of the laboratory workers has occurred within the last hour or so, and that is the number of representatives of other Sections who have seen fit to refer to the work conducted by the laboratory group.

One of the difficulties that I am faced with at the moment is that we feel it is rather difficult to evaluate adequately the highlights of any particular stage. In that connection one might refer to an occurrence some twenty-five years ago when this Association met in Boston, at which time Dr. R. L. Kahn presented his technique for the Kahn test. Although not present at that time,

I am informed that it created considerable discussion, but one wonders whether it would have been referred to as a highlight of the 1923 meeting. How can we accurately predict where emphasis should be placed at the present time?

Some of the papers that have been presented are of highly technical nature, and most of us are in no position to evaluate the significance of such work. I think, however, it is rather remarkable that the Laboratory Section and laboratory workers in general have become involved in so many other fields of activity. You have heard references to "Q" fever which in our estimation was one of the most important presentations at this meeting. You have heard references to problems in nutrition and the studies on infectious diseases—again, with participating laboratory workers.

If one were to take an impression of the highlights, or rather, an impression of interest at this meeting, it would be that the laboratory workers as a group are vitally concerned and, to say the least, a bit worried about the effect of health grants for programs not primarily in the laboratory field. They all visualize a tremendous increase in demands for work in the laboratory and I trust that workers in other public health fields will not forget the important role that the laboratory must play, has played, and we hope will continue to play, and the necessity of supporting and continuing efforts in the development of high standards of work. Funds must be made available for the conduct of laboratory and research work if other wider problems are to be solved.

CHAIRMAN ATWATER: Have you any prediction as to those things which twenty-five years from now will look as important as the Kahn test for syphilis looks in 1948?

MR. GIBBARD: As a guess, one would feel that probably the application of radioactive isotopes in the elucidation of problems of infection, immunology, and nutrition. Perhaps we will look back in twenty-five years and wonder at the importance of the paper that was presented on that subject at these meetings.

CHAIRMAN ATWATER: The Laboratory Section next year will celebrate its 50th anniversary. It is one of our senior groups and we look forward to another good program.

The speaker for the Health Officers Section, Dr. Herman E. Hilleboe, has been called home on an emergency and his place has been taken by Dr. William A. Brumfield, Jr., his first deputy.

DR. W. A. BRUMFIELD: I shall speak on one point discussed at the Health Officers Section, namely, the question of recruitment of personnel and personnel administration, because I feel this is by far the most important problem that is facing the public health administrator.

A panel on this subject was held on Tuesday afternoon. I shall give you briefly the points of agreement of this panel. First, it was agreed that personnel administration is a specialty and in every large health organization, certainly every state department and large municipal or county health department, there should be a special office of personnel administration, this office to be directed by a well trained and competent personnel administrator.

It was agreed that the services of the officers in these large organizations should be made available to smaller organizations within the framework of the state so that the services of these specialists could be available for those organizations in which such services would not be practicable on their own money.

It was agreed, secondly, that recruitment of personnel is one of the most important problems confronting health officers today. This recruitment of personnel is not confined solely to trained

personnel who can be put to work, but it also relates to persons who may be recruited for training, and who eventually can be put on the job.

It was agreed that the low salaries which are offered in health positions is one of the foremost reasons for the inability to recruit and train personnel at this time.

Third, the matter of selection of personnel: It was agreed that the merit system should be followed in so far as possible in the selection of all types of professional personnel: nurses, health educators, engineers, and physicians; and that examinations of both the written and oral type are applicable to the selection of personnel.

It was also agreed at this time that we should not limit examinations to groups of persons who are competing against each other, but should set up a system of continuing examinations which would permit individuals to be examined, or to compete against a standard.

It was also agreed that training of personnel should not be limited to the schools of public health or other types of institutions giving training to professional personnel in the field of public health, but that in each of the health departments there should be established an inservice training program which will provide refresher instruction to personnel in the organization.

Fourth, it was agreed that conferences between members of the staff are extremely important in the maintenance of morale in the organization and that such conferences should be held by the chief of the service at regular intervals and should be held in such a manner that the personnel from top to bottom could discuss the problems which confront them in order to get such problems solved.

It was agreed, fifth, that provisions should be made in all health organizations for increases in salary of personnel as they become more experienced and therefore more valuable; also, that, wherever possible, provisions for promotions should be made in order to keep competent people on the job.

And, last, it was agreed that when one had completed his work in the department and was eligible for retirement, or was forced to retire, provision should be made for a retiring annuity which would permit him to retire gracefully.

CHAIRMAN ATWATER: We shall now have a few words from a representative of the Committee on Administrative Practice. Dr. Wilton Halverson of California is chairman of that committee, but he had to be in Geneva this week for the meeting of the WHO Executive Committee. Dr. Roscoe P. Kandle, Field Director of the American Public Health Association, New York, will summarize the affairs of the committee.

DR. R. P. KANDLE: One of the things that struck me about the work under the C.A.P. is that the tempo and variety of interests and products of public health remind us that it is still a vigorous adolescent. I would like to remind you that the C.A.P. is composed of 150 of you and your colleagues who work very hard throughout the year, that there are many seeds sown during each session which germinate rapidly and grow most extensively. It is not just an annual meeting and then another meeting next year. There is a continuity in the growth.

One of the efforts of this committee is through its Subcommittee on Local Health Units. The National Health Council carries most of the action program now and, in spite of the trouble we have with regard to personnel, we are getting additional health units. For example, Indiana now has passed its first referendum. Admittedly, the campaign by Dr. Haven Emerson, Chairman of the Subcommittee, so well con-

ducted to extend health units, does aggravate the personnel recruitment problem, but I remind you of the citizens' support and interest, which is being gained by this campaign. It emphasizes the need for better salaries, and salaries *are* advancing in public health.

Evaluation of health practices is a tough discipline, and not a very pleasant discipline. Ofttimes it disturbs our complacency and upsets some of our choice illusions. Yet, 187 health units throughout the United States and Canada filled out the *Evaluation Schedules* this year and submitted them to the Association for appraisal; and a great many others used the schedule without formally submitting it.

Massachusetts, California, and Pennsylvania courageously requested extensive administrative studies at the state levels. Massachusetts and California have made significant use of these studies. The Pennsylvania study is just now being completed and we have good reason to believe that the Commonwealth of Pennsylvania means to make similar progress in providing better public health services.

The Engineering Group, a subcommittee under the Committee on Administrative Practice, has developed and distributed an *Evaluation Schedule* for sanitation, which is of great interest to everybody in the environmental sanitation field and is being quite widely used already.

A similar kind of special schedule is being prepared by the Public Health Dentistry Subcommittee, and we look forward to that with a great deal of interest.

In the technical field we cannot overlook the fact that a five year study group on multiple antigens is bringing out a report which was discussed yesterday and which will be of intense interest to every health officer and epidemiologist administrator in the field.

The Jodized Salt Bill in the House of Representatives in Washington was rejected in committee, and it got nowhere. In spite of frustrations, however, that committee continues to work with amazing persistence and patience, and they provided us with one of the most interesting of the scientific exhibits, which I hope you saw.

One of the things that are coming out of the Study Group under the Subcommittee on Evaluation of Administrative Practices is the statement on control of typhoid carriers which will be of good service to all health officers.

Just to add to what Dr. Francis said about the control of communicable diseases, there was a small but very important study group that worked all of last week-end and are going to bring us what looks to me to be one of the best things that have happened for some time, a report which clarifies the knotty problem of streptococcal infections and scarlet fever.

Accident prevention through health departments is going forward, and we had a good exhibit on that point by the National Publicity Council.

The important study of Public Health and Bedside Home Nursing Services was published last January. The Cost Study that began in 1946 in Public Health Nursing is bearing real fruit and getting more active every month.

You know a great deal about the Subcommittee on Medical Care, and I am sure you are well aware of their activity, through this Annual Meeting program. One thing I would like to point out is the joint committees, studying problems in medical care. Let me pay particular tribute to the one which Dr. Ellen Potter now heads, the joint committee on chronic diseases which has among its members representatives of the American Hospital Association, the American Medical Association, the American Public Welfare Association, and the A.P.H.A. They have worked long and hard this week.

So we are making progress through this Standing Committee and I think we can count on the C.A.P. to deliver more goods.

CHAIRMAN ATWATER: Our next speaker represents Public Health Education, Dr. Granville W. Larimore, Director of the Division of Public Health Education in the New York State Department of Health.

DR. G. W. LARIMORE: There are three points in the Health Education Section program specifically which I would like briefly to call to your attention. The first of these is a realization on the part of public health educators of the necessity for what we have come to call "the techniques of community organization" for achieving many of the objectives of present-day public health programs. As we shift to the chronic disease problems and into those problems which are individual in nature, which require the active coöperation of all individuals, we face the need for people to solve their problems for themselves and the necessity for greater and greater concentration on these techniques.

This was brought out in the *Journal* in a paper by Dr. Turner, and also by papers concerned with Public Health Councils by Dr. Ferree and Mr. Lifson and others. The health council does represent a very effective technique for community organization for health within the community.

In Dr. Ferree's paper there was a little verse which seems to me to epitomize what a health counsellor in a community organization can do. I would like to read it to you:

> A horse can't pull while kicking.
> This fact I merely mention,
> And he can't kick while pulling,
> Which is my chief contention.

The second highlight of our session was a realization on the part of health education of its responsibility in the inservice training of public health personnel. We feel not only that public health education has a role in selling the health departments to our staff through programs of orientation, but also in improving the skill of our workers through on-the-job training, particularly in these days when personnel shortages are critical and we must make the best use of the personnel that we have.

The final point I would like to bring to you is the paper which Dr. Iago Galdston of the New York Academy of Medicine gave on "Motivation in Health Education." What is it that makes people have health habits, and how can we influence good health habits and how can we influence behavior toward achieving better health habits? Dr. Galdston quite frankly took health education to task for its emphasis in the past, and he feels—and I feel that we must agree with him in part, at least—that facts alone will not necessarily motivate people to achieve better health.

He refers to older techniques as "exogenous motivation." It tells people what to do, and there is nothing people resent as much as such instruction even if they are faced with death. We realize that "exogenous motivation," this business of merely presenting facts that are not related to the individual's own activity, is likely to fail.

The individual wants to eat, to move, to rest, to serve his body's needs. When he is a little boy he wants to grow big and strong and to be able to do things: to run, to play, and to acquire skills, to be an athlete, and so on. Then when he is a young man or woman he wants to be attractive, to be liked, to be popular, to have friends, to advance in his or her studies or work or ambitions. When grown older in adulthood he will want love, sexuality, marriage, and a home and children.

People will want these and many

other things, but they will not want health *per se*, that is, health pure and simple, unless they are hypochondriacs.

If we are going to teach health and influence behavior and develop good health habits, our teaching must be geared not to teach health *per se*, but to teach the individual how to attain his immediate goal. This Dr. Galdston designates as "endogenous motivation."

CHAIRMAN ATWATER: The spokesman for the Vital Statistics Section is Dr. Forrest E. Linder of the World Health Organization.

DR. F. E. LINDER: Statisticians like to use statistics. One important fact about our Section this week is that we are now forty years old. Forty years is not an age of infancy nor an age of senility, it is an age of maturity, and I think the maturity of the Section can be demonstrated by one fact: of five sessions which the Section held this week, four were in collaboration with some other unit of the A.P.H.A. or some related organization.

This maturity shows that the statistician is more and more coming to fill his proper role as an active collaborator with all the other health activities to which he can make a contribution. I cannot mention all of the twenty-five excellent papers that were read at these sessions, but I would like to point out two things that I think may be of particular interest to you.

One of these refers to the standardization and revision of the *International List of Causes of Death*. You have known that for a long time there has been an international coöperative effort to attempt to standardize the statistics on mortality. This new revision, which is a radical departure now incorporates many more titles arranged in such a way that the same list can be used equally well for mortality and for morbidity.

The statistician is going to have many headaches in adopting this list, and when the list is put into use we are going to have to explain to all of you many curious and difficult influences upon time trends. But after that difficult period is over I am sure that we will be on a new road for laying much sounder factual bases for the type of statistical data which public health workers need.

One other point in our Section I think is worthy of mention in particular, but I am a little timid about mentioning it. Since last election day statisticians do not boast too much about their sampling activity and about their polling activities. Nonetheless, if medical science stopped whenever it made a spectacular failure, or whenever its scientific concepts and advice were utilized for commercial gain, it would have stopped long ago. The science of statistics does not propose to stop at this time, and for that reason we are thinking and studying and trying to find out how the techniques of sampling and the techniques of statistical surveys can be applied to the problems with which you are all concerned. I think that before many years you will find we are making a contribution to that field which you will all find invaluable.

CHAIRMAN ATWATER: The spokesman for the Dental Health Section is Dr. Walter J. Pelton of the U. S. Public Health Service.

DR. W. J. PELTON: This year we public health dentists made great effort to plan our program so that each speaker or each group of speakers would make a contribution to the total program of the American Public Health Association. Our first theme was nutrition, diet, and dental caries, which I am sure we have not heard the last of yet.

The outstanding paper on "A Method of Evaluating Dental Programs" at our meeting with the American School Health Association was in reference to

the method that Dr. Kandle had in mind when he referred to the evaluation of dental programs. I think in the near future the evaluation method that the C.A.P. produced will be a notable "first."

The cancer session which we held was rather important and we included the whole field. It marks a very definite departure in public health thinking in that dental programs are now associated with geriatrics as well as pediatrics.

In connection with caries programs a paper was presented which developed sparks, heat, and considerable argument. The topic of that paper was "The Use of Auxiliary Personnel in Dental Programs," the development of the idea of using a dental nurse as an assistant to a dentist operating on a patient's mouth.

The Section has been active in the last three or four years in getting out a book on *Public Health Dentistry*. I am happy to announce at this time that the Saunders Company predicts that the book will be published about January, 1949. At this time I would like to thank the members of the American Public Health Association, particularly the staff, and especially Dr. Atwater, for his guidance and help and assistance in preparing this material.

CHAIRMAN ATWATER: I am glad you can report that the volume on *Public Health Dentistry* is as near completion as this. This is a real achievement, and you are going to be proud of it. The next speaker represents not only the Section on Maternal and Child Health, but he is also a spokesman for the new Section on Medical Care created on November 10 by the Governing Council. Dr. Dean W. Roberts is the Director of Medical Services in the Maryland State Department of Health in Baltimore.

DR. D. W. ROBERTS: I am glad now that the new Section on Medical Care can take away the honor from the Dental Health Section of being your newborn. There are some, I believe, who feel that perhaps this is a premature delivery, but I believe the more than 500 individuals who petitioned for the creation of this Section, most of whom were previously non-members of the Association, will assure you that it is a full-term Section which most certainly will not fall stillborn but will be lusty and vigorous in the days ahead.

In the program of the Child Health Section the highlight to me was a symposium on prematurity. There were two particularly excellent papers presented by Dr. Katherine Bain and Dr. Helen M. Wallace, but I would like to discuss the symposium as a whole.

The enormous importance of prematurity as a public health problem was well documented. This is the principal cause of infant mortality in virtually all parts of this country. About 6 per cent of all babies born are born prematurely. Over one-fifth of these die. In New York City 50 per cent of infant deaths are premature infants.

Throughout the country, particularly in New York, in Colorado, and Louisiana, we are seeing demonstrations of programs developing which, although they have not yet brought full answers, give promise of throwing a very considerable light on the problem of prematurity and what to do about it. We need to know what roles are played by economic factors, by nutritional factors, and by emotional factors associated with prematurity. Once we know more about the causes we can add more emphasis to prevention.

Even with our present knowledge we can intensify our program for providing prenatal care and adequate diet for pregnant women. We must work out good systems of care for the infants who are born prematurely, so often beyond the capacity of individual families, physicians, hospitals, or other single agencies. The program must involve the participation and coöperation of a

great variety of community resources; and will require public subsidy. The program must emphasize the essential nature of investigation of the homes to which the premature infant must return, preparing the home for the return of that infant, the teaching of the mothers so that when the baby is at home she will meet the needs of the infant with confidence.

Dr. Wallace very dramatically drew a picture for us comparing the facilities and the practices of a group of hospitals in New York City where little or nothing is done for the care of the premature infant compared with what is done in a modern premature infant center. The gap between what we do for premature infants and what we know we should do is vast, and we are only beginning to make a start to close that gap.

Moving from the Section on Maternal and Child Health, I would like to comment on one session that was sponsored by the Subcommittee on Medical Care.

That was a panel, a series of papers dealing with the quality of medical care. All too often proposals for medical care programs have so concentrated on the financing of medical care that the subject of the kind of medical care has been neglected, and we begin to feel that perhaps all we need to know is how to pay the bills. Such is not the case at all, and this symposium discussed a number of concrete administrative procedures which, if put into effect, can readily raise the quality of medical care.

The first of these papers was by Dr. Dean A. Clark in which he fully demonstrated the ways in which group medical practice will raise the quality of medical care.

A second paper was one by Dr. Albert D. Kaiser in which he showed us how regionalization of hospitals can be made functional. Every state that has drawn up a hospital construction program has dotted lines on maps showing presumed relationships between regional and general and subsidiary hospitals. In most instances those are just dotted lines. Dr. Kaiser showed us how those lines can be built into functional and effective measures of raising the standards of performance in hospitals.

CHAIRMAN ATWATER: Our next speaker is Charles L. Senn, Engineer-Director of the City Health Department Bureau of Sanitation, Los Angeles, Calif.

MR. C. L. SENN: The theme of our engineering Section program is well stated in the title of a paper by Dr. Henry F. Vaughan: "A New Look in Food Sanitation." First of all we tried to decide what we as public health engineers, are including in our engineering program. We heard from Dr. Winslow that the old engineer who devoted himself only to the use of those two weapons, control of water and sewage, is like the old soldier standing on guard at the gates of the city when the enemy has disappeared. We came to the realization that our enemy is now among the people themselves in their homes, and so we have started to develop some sort of a program that might attack that fundamental point. We talked about the old sanitary inspector, and we feel his day has passed. The profession must be elevated to be one which is respected as are others in public health.

The highlight of our session was to have an engineer, Dr. Abel Wolman, honored by receiving the Sedgwick Memorial Award. We heard from him how when he, as the only sanitary engineering representative of the World Health Organization, arrived at Geneva he found that, while they had included malaria control in their program, they had entirely omitted the broad field of environmental sanitation. However, they were pursuaded of the monumental

importance of that field and it was finally included as one of six major objectives.

We are mindful of the criticism heaped upon health officers and sanitation administrators for faulty restaurants, deplorable housing conditions, hordes of rats, and many other conditions and nuisances, and we feel that it is time that we took stock and developed the ways and means of combating those things and evaluating the work actually accomplished in sanitation.

To do that requires team work from the health officer, the nurse, the industrial hygienist, all working together. One demonstration of team work was presented in our morning session on housing— and here is a field where it was pointed out that the nurse, the planner, the builder, and the health officer can get together to evaluate what we consider perhaps the most important foundation of environmental health. There is need for coördination of our work with industry, and we are glad there has been established at the University of Michigan a National Sanitation Foundation where health people, educators, public health researchers, and industry can get together and work out problems so that some day we shall no longer have 30,000 different codes based on the "armchair" philosopher's ideas, but have codes based upon scientific knowledge and judgment.

I cannot end with a more fitting comment than the final paragraph of Dr. Henry F. Vaughan's paper in which he says: "Wisdom and statesmanship are vital to orderly progress in sanitation. The men of sanitary science are outnumbered in our health departments only by public health nurses. The nurse has done much to evaluate the quality of her contribution to the health program. The man in public health sanitation should do no less. In this endeavor he requires the sympathy and understanding support of every public health administrator."

CHAIRMAN ATWATER: The next speaker needs scarcely any introduction to you, Dr. William P. Shepard. He has many capacities in the Association, but most important for the moment is his capacity as Chairman of the Committee on Professional Education, one of the four Standing Committees of the Association, and on that I shall ask him to make a brief report.

DR. W. P. SHEPARD: I can do little more than give you an index of the many activities of the Committee on Professional Education which culminated for the past year, at least, at this meeting, in the hope that you may find your special interest in this index and read the reports in full as they appear.

As some of you know, the two reports that we presented to the Governing Council were approved, namely, that on the Educational Qualifications of Community Health Educators, a revision of Professor Turner's subcommittee's report of three or four years ago; and the report on Educational Qualifications of Sanitarians. They were approved by the Governing Council with very minor editorial changes made at our suggestion.

I thought you would like to know that among the additional revisions of existing reports which may be forthcoming very shortly is the report on engineers, the one on vital statisticians now practically ready, by Dr. Fales and Dr. Reed; and the one on public health nurses.

I thought you might like to know that we are authorized at least to tackle two new fields for such results as we may be able to obtain. One is the possibility of drawing up educational qualifications for non-medical administrators. They are variously called "administrative assistants," and by other titles. They are the executive assistants, the administrative assistants

of health officers and hospital superintendents, and of many health department bureaus. We are also authorized to investigate the possibility of developing a report on the educational qualifications of dental hygienists, and to prepare a report on veterinarians in public health.

Just a word about field training centers. The report of Dr. Gaylord W. Anderson's subcommittee two years ago, approved last year by the Governing Council, has now been worked over into a little less ideal, but a little more applicable and practical form at the special request of the newly incorporated Specialty Board for Preventive Medicine and Public Health, of which I shall speak in a moment.

I am sure you have been impressed, as we have, by the studies and reports made by our Subcommittee on Salary Studies. You have had for the first time now from the columns of the *Journal* more or less current data concerning salary arrangements in official and voluntary health agencies.

I am sure you appreciate the Merit System Service's splendid exhibit this year, and their very interesting job of selling at the panel discussion which they held yesterday. I have never seen a better job done, and we are hoping it may call this splendid and unique service even more fully to the attention of personnel administrators and health officials.

The accreditation of schools of public health remains about as is, except that we are planning to increase the stringencies of the criteria somewhat, not in such a way as to discredit or hurt any of the existing schools, but rather as an additional hurdle, we might say, for proposed schools which aim to come up to the standards which the other schools have reached. This by no means shuts the door to the organization of new schools of public health, but it does make a university stop to think how they may meet certain minimum criteria before they suddenly decide to embark on such a course.

Our Subcommittee on Personnel Administration has done excellent work and has brought to our attention more fully than before the special arts and sciences and skills required in this field.

We have a subcommittee wrestling with an extremely difficult task under the chairmanship of Professor Turner, trying to devise some method of accrediting masters' degrees other than the master of public health degree in health education. It is a long, intricate subject that I have not time to go into now, but a progress report may be expected soon.

The Board for Preventive Medicine and Public Health has been incorporated, and consists of Dr. Walter L. Bierring as chairman, Dr. Felix J. Underwood as vice-chairman, Dr. Ernest L. Stebbins as secretary-treasurer, and six other members. Its incorporation was necessary before we made application to the American Medical Association's Council on Medical Education. Whether or not our plans for issuing specialty certificates in the field of public health and preventive medicine materialize, hinges upon a hearing in Chicago next February, and until that hearing is held and we have a decision from that Advisory Medical Council, we shall not be able to accept applications for specialty board examination.

We have never faced a more serious shortage of public health personnel, and while this question is beyond the scope of the Committee on Professional Education, it is of great importance to the American Public Health Association. We need more people and better people.

CHAIRMAN ATWATER: Our next speaker will be Miss Margaret S. Taylor, Director of the course in Public Health Nursing at the University of Minnesota.

MISS MARGARET TAYLOR: It seems

to this reporter that the Public Health Nursing Section, in planning the activities at this conference, put into practice some of the most vital premises on which public health nursing is built, namely, that public health nursing, to be effective, must have in its practitioners expert family health workers. They must know how to function as members of the public health team. Therefore, only one session was devoted exclusively to public health nursing, and we were very happy to participate with other Sections, feeling that in this complex society, if we are to meet the needs of the family and to function effectively as public health workers, it must be through coöperative action.

Therefore, most of these comments will highlight the individual session on public health nursing with special mention of the pertinent highlights in one or two others.

The one individual session was concentrated on Ways of Increasing Nurse Expertness "through time, through better guidance, through better orientation, and inservice education through analysis of the cost of these for better service." The university, it was pointed out, was in a very strategic position to help meet responsibilities in this regard. It can do this by having its educational programs flexible and individualized to meet the backgrounds and needs of the student and also the public (the needs of the community), correlating closely theory and practice. It was pointed out that such a program was only possible when based on a thorough knowledge of the advances in basic nursing education.

One attempt to reach the former end in universities is through increasing the learner's participation in his own learning, and it is felt that this is one important way to increase professional responsibility and competence.

There was also a very interesting discussion on how the nurse could be trained on the job, the length and the extent to which this could be done. A particular highlight of this discussion was that there were two main functions of this inservice education. One was to help the person gain skills through actual participation in functioning as a family health worker, with concern not only for the individual but also for families as a whole and of the health of the communities. Another was to learn how to function as a member of a public health team. To realize that it was essential to do the second in order to accomplish the first, use of supervision here entered the discussion. Emphasis was given through the meaningful, practical suggestion that only through actual seeing and experiencing guidance and counseling and supervision can we have dynamic vital staff nursing work.

Then because we are a very realistic group, the session ended with a discussion of need for and a method of cost analysis. There are discussion groups going on all over the country right now at which it is hoped not only nursing leaders from voluntary and public agencies will participate but also health officers and other persons concerned with operation of public health programs. So far, one health officer has attended.

Just one or two brief highlights on other Sections. At the joint meeting with the Health Officers on Personnel Management, again it was stressed that every new worker should have a planned orientation experience early in his employment. This orientation should be not for any one exclusive group, but should include all workers, not just all professional workers, but all workers in the agency, both professional and nonprofessional, so that all could put the philosophy into action. To learn together helps us to understand each other and then to function better as a team. This must be continuous in the service education program.

There were two other matters which were mentioned in this session. The problem of transportation, a very real problem and a most difficult one, to date is unsolved. If a large part of the health department budget is spent for public health nurses, this transportation bottleneck must be solved and it needs more realistic analysis. For this reason rural areas are losing new public health nurses.

It was emphasized also that there is a vital responsibility resting on the administrator to have all personnel work as a unit with excellent *esprit de corps*. We need to find a tangible way to put it in action so that we do not just say we will plan together, but we actually do it. The old story of allocation of responsibility with administrative backing is more necessary than ever in the complex public health work of today.

Many other discussions brought out the great importance of a good referral system between all agencies and persons, such as hospital and community agencies, so that every patient in the community would receive continuity of care to the limit of community resource and therefore have a chance to get well, prevent relapse, and stay well. This is an area long given intellectual approbation but with too little actual follow-through in action to date.

CHAIRMAN ATWATER: Now, a word from the chairman of the Committee on Salary Study. Dr. William R. Willard, Associate Professor of Public Health at Yale, who has made a special study of this subject during the last year or more during which time he has been chairman of the committee.

DR. W. R. WILLARD: We are all agreed, of course, that we would like more money, and you have had reference before to the urgent problem of recruitment and to the holding of personnel in the field now, which is closely tied up to the salary problem.

The first thing in trying to get salaries raised is to know something about what is now being paid. Consequently, efforts have been made to get information on a nation-wide basis as to the present picture on salaries. We have been very fortunate in that the U. S. Public Health Service, under the direction of Mr. Donald Simpson, Chief of the Personnel Administration Unit, has now completed three salary studies. The first one last year, on the salaries of state public health workers, was repeated again this year and is just off the press. A gap of about nine months between the two studies has shown, Mr. Simpson informs us, an overall increase of 6 or 7 per cent in salaries during that nine month period. Of course, one of our friends reminded us that we really did not get increases of 7 per cent, but we actually lost about 7 per cent when one compares these increases with the cost of living.

There have been some other studies on salaries that are significant, those made by the state laboratories, by the Vital Statistics Section of the A.P.H.A. and by the N.O.P.H.N. They are all useful in giving information as to the salary picture, and I feel sure if these studies continue as now planned, in the course of time—and not too much time—we will have useful trends which will be of increasing value in our efforts to secure adequate compensation.

I would like to point out that salaries are related closely to the qualifications of the individual, to his experience, to the responsibilities that he holds, and it is rather difficult, as matters now stand, to compare salaries in one area with those in another because of unknown factors involved. Jobs are called by different names, and they carry different responsibilities and require different backgrounds, and in an effort to get more adequate information for comparison as well as for many other purposes, the subcommittee is giving some consideration to formu-

lating a study project by which we hope to get more tangible and concrete information.

I think you are all aware of the Clearing House on Salary Information that the *Journal* has carried. I think that has been useful. I certainly hope that you will submit information that you pick up, your own experiences and anything at all that you feel would be helpful for other people to know about in improving the salary picture. Certainly, Mr. Frasher and other A.P.H.A. members have done a wonderful job with their clearing house information as well as in other phases of the salary problem.

Now, we come to the last point. You may recall that some months ago the Executive Board of the A.P.H.A. made a recommendation of minimum salaries for public health physicians. There is a considerable feeling that those recommendations should be modified, certainly extended to include other groups. The force of the A.P.H.A. standing behind certain recommendations might be helpful to you and to other workers in increasing salaries.

Consequently, the committee has begun a formulation of such recommendations and if they are approved later on by the Executive Board, possibly you will have another weapon to help you.

I rather hesitate to predict that you will have increases in salaries during the next year. I certainly hope you do. If you do, you might consider putting some of it in life memberships of the A.P.H.A.

CHAIRMAN ATWATER: Our next speaker is Dr. Winslow, Editor of the *American Journal of Public Health.*

DR. C.-E. A. WINSLOW: Dr. Atwater, I think that up to this time and excluding from consideration anything that may happen in the next five minutes, I should be prepared to say that the high point of the convention was the panel discussion this afternoon.

Certainly, one of the high points of this convention has been the remarkable efficiency with which it has been managed, involving a great deal of work on the part of Dr. Cauley and Dr. Wilinsky and the rest of their committee and of the staff of the Association.

Another is the quality of the papers. I have been to a good many of these conventions, but I doubt if we have had an annual meeting at which the quality of papers was as high as these have been.

A third factor, I think, of importance has been the note struck by centering so many of the discussions this week around the story of Lemuel Shattuck and giving us a background and a vision for all that we have been doing.

We have, however, not only sound roots in the past but promise of brilliant flowering for the future. I think one of the best things that have ever happened to us has been the creation of the Section on Medical Care.

I think perhaps, to me, however, the highest point of this convention is one that has been brought to our attention this afternoon but possibly not sufficiently emphasized. That is, the work of the Standing Committees.

You have heard Dr. Getting in regard to the Committee on Eligibility, and Dr. Francis on Research and Standards, and Dr. Kandle on Administrative Practice and Dr. Shepard on Professional Education, but I doubt very much if many of you have any conception of what this Association, and the cause of public health, owe to these Standing Committees. These are not sitting-down jobs. Just think where we should be in public health without the report on *Standard Methods for the Examination of Water and Sewage,* and the report on *Standard Methods for the Examination of Dairy Products,* and the report on *Diagnostic Procedures and*

Reagents. Where should we be without the procedure for evaluating health services and the studies on salaries and personnel adjustment? Where should we be without the formulation of standards for the various types of health workers and for the procedure of accrediting schools of public health under Dr. Shepard's leadership?

I have had the good fortune to attend two of these committee meetings, which sat until 1.00 a.m. in each case. I was filled with admiration and with a deep sense of responsibility to between 300 and 400 people who are working throughout the year on development of standard procedures, and of methods which are absolutely fundamental to everything we do. I think that is a service which is more or less unique in professional societies in its extent and in its quality.

Now, just a word about the *Journal*. You know what the *Journal* is worth better than I do, but I want to say, in closing, one word on what I think Dr. Atwater and Mrs. Jay and the rest of our colleagues working on the *Journal* feel to be its primary and major functions. That is, as I see it, to tie together the thirteen Sections of the Association and the four countries over which its membership of 11,500 is now diffused. In all other countries except the British Empire, so far as I am aware, public health is essentially a branch of medicine. Here we recognize the medical health officer as our leader, but we conceive of public health as a social movement which includes a dozen professions, medicine, engineering, nursing, dentistry, nursing education, nutrition, etc., bound together in a single common cause, brothers and sisters in arms against a common foe.

The A.P.H.A. is not a melting pot in which diverse elements are fused into a single substance. That would be a very dull and deadly thing. This Association operates in quite a different way. It is a polarization of diverse groups and their coördination in a single task, each profession contributing its special knowledge and special accomplishments toward a single goal.

The organization of a dozen groups of independent specialists into a team devoted to the well-being of mankind is the supreme attainment of the American Public Health Association, and it is the major ideal of the *Journal* to play its part in that great task.

CHAIRMAN ATWATER: Thank you Professor Winslow and each of the other participants who, in an extraordinary way, have precipitated in a few words the opinions that they have about this program.

Many of the program papers will appear in the *Journal* and some in other publications. We will make them available to you as rapidly as possible.

Dr. Charles F. Wilinsky, who is President-Elect, is taking office now at the close of this annual meeting, and I will ask Dr. Wilinsky if he will close this Second Special Session, which is the last meeting of the 76th Annual Meeting of the American Public Health Association.

DR. WILINSKY: Dr. Atwater, distinguished members of the panel, and my good friends, the membership of the American Public Health Association, we in Boston have waited a quarter of a century for the happenings of the past week. Our regret is that you gave us so long a breathing period in which to prepare for the 76th Annual Meeting, and we earnestly pray that you do not keep us waiting so long again.

It has been a source of great joy, of great satisfaction to each and every member of the Boston Committee, to make it possible for you to spend what we hope has been a pleasant five days, but we are particularly delighted with the reactions which we are receiving from all sources as to the content of the scientific program.

Those who know Bostonians, and we acknowledge our frailties and our shortcomings, agree at least that we have tried to be hospitable, and we had no fears but that everyone would do all he could to make you feel at home. We are mindful, of course, of the limitations of our meeting facilities. We were troubled about the headquarters at Mechanics Building for the meeting, and, therefore, we only hoped that difficulties would not be too great and would not impede the scientific deliberations and the opportunities for the exchange of ideas from which the men and women and children of America would profit.

May I express for the Local Committee, may I express for the people of Boston and of New England, our very deep gratitude for your kindness in coming here to be with us. We hope that your stay has been pleasant. You have enriched us by being here, and you have stimulated us to try to strengthen our health service on what we may term local levels because of the inspiration we have received from your presence among us.

God bless you all.

CHAIRMAN ATWATER: The meeting is adjourned.

A New Look at Sanitation*

HENRY F. VAUGHAN, DR.P.H., F.A.P.H.A.

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IT may come as a surprise to some of you that one steeped in the traditions of public health administration and sanitary engineering should possess the audacity to suggest a new look at sanitation. The colorful and impressive milestones spread over the past several decades emphasize the noteworthy accomplishments in the eradication of typhoid and other enteric infections through the improvement and extension of safe water supplies and the installation of sewerage systems and disposal and treatment plants.

It is fitting on this occasion to remind ourselves of the early studies and constructive actions instituted by those pioneer men of sanitary science who labored in Massachusetts. State participation and achievements in the advancement of community health have established historical benchmarks since the organization in 1869 of the first among the state boards of health. The creation of a Division of Sanitary Engineering in 1886, the oldest of all, constituted one of the first functional activities of the State Board of Health. The story of the able engineers, Goodnough and Weston, as well as the great contributions to sanitary science by the giants of the Lawrence Experiment Station, are too well known in the history of public health to require enumeration. Mills, Hazen, Fuller, Sedgwick, Jordan, Clark are names which symbolize the early struggles of the sanitary engineer and chemist with the realities of a healthful environment. Outstanding investigations showed the dangers of polluted water, the means of treatment and purification, followed by the brilliant contributions in the biologic studies of sewage treatment and stream pollution. These were followed by Sedgwick's impressive revelation of the conditions of market milk in Boston and subsequent introduction of bacteriologic supervision and ultimately pasteurization.

One need but turn to the pictorial review of *Health Practice Indices*,* 1943–1946 (pages 54 and 56) to be impressed by the noteworthy results in providing a safe water supply and an approved sewerage system in the 254 areas in 33 states with cities and towns of more than 2,500 population. Approved water supplies reaching 98 per cent of the population are found in more than half the areas reporting. There are but 20 areas in which less than 85 per cent of the population have approved water supplies. There are but 64 among the 254 reporting areas in which less than 75 per cent of the population is served with approved sewerage systems. A second glance at the *Indices* (page 62) discloses the significant fact that in 50 per cent of the 258 reporting areas more than 95 per cent of the bottled milk offered for sale is pasteurized. There are but 46 areas in which less than 70 per cent of the

* Presented at a Joint Session of the Food and Nutrition, Health Officers, Laboratory, and Engineering Sections of the American Public Health Association at the Seventy-sixth Annual Meeting in Boston, Mass., November 11, 1948.

* Committee on Administrative Practice, American Public Health Association.

milk is pasteurized. Progress has been made, advances are noted in each succeeding edition of the *Indices*, and the results are extremely gratifying.

Now let us turn our attention to another chart in *Health Practice Indices* (page 60) and discover the percentage of restaurants, lunch counters, and taverns with approved sanitation and food handling facilities. Although this chart can only reflect reported practice, it is significant that 43 of 276 reporting communities claimed perfection—what a comfort to the harassed public health officer and his director of food inspection! More important, 52 areas furnished no information, and of 224 for which data were available only 50 per cent reported that 75 per cent of the food establishments had approved sanitation and food handling facilities—truly a sorry picture. But we are told that health education is the slogan of the streamlined health program, and that the printed word together with the spoken word and visual methods has been substituted for the outmoded practice of rigorous law enforcement. And so, with eagerness, we turn to the chart (page 61) which silhouettes the percentage of food handlers reached by group instruction programs. This chart relates to instruction in methods of food handling beyond that possible during inspections. Of the 276 reporting communities, only 13 report that 90 per cent of the food handlers are reached by group instruction; in only 48 areas are 50 per cent reached. Ninety-six communities have no group health education program, and for 62 areas no data were available. Truly these charts disclose the unplowed fields of environmental sanitation. Like other public health endeavors, the field of sanitation with emphasis upon clean surroundings, does not remain static but constantly undergoes adjustment to the living habits of people and to developments in business and industry and to the educational, research and other tools at the disposal of the healthmen.

All of the five charts referred to above portray items of major significance in the evaluation of community health services. These are among the 13 key items (red-black items) of the *Evaluation Schedule*,* 7 of which deal with problems of environmental health. The 2 remaining sanitation items will be found under milk pasteurization plant equipment and industrial health. Existing problems of food sanitation become more acute, and new problems are generated by changing modes of life. Men of sanitary science find themselves confused for want of factual data on which to establish reasonable standards and practices. Together with men of business and industry, they find themselves befuddled by the kaleidoscopic array of codes and regulations which impose requirements too little understood or unjustified for lack of basic scientific information. Sanitation, therefore, presents an illustrious history, a chaotic present, and a challenging future.

Every health program must have a philosophic background inspired by reason and understanding. The modern health department endeavors to help people to help themselves in the improvement of personal health and, thus, the improvement of community health. Public health is primarily the summation of personal health. The whole can be no healthier than the part. There are some services of personal and public health which government through its health department can perform better, others that the individual can do better, still others which depend upon a joint undertaking. In the handwriting of Abraham Lincoln on a scrap of paper found in the collection made public in July, 1947, the great emancipator expressed his views of the relationship of

* Committee on Administrative Practice, American Public Health Association.

government to the people. "The legitimate object of government is to do for a community of people whatever they need to have done but cannot do at all or cannot do as well for themselves in their separate and individual capacities. In all that the people can do as well for themselves, the government ought not to interfere."

For the past twenty years the health department and medical profession in Detroit have engaged in a program to activate the latent resources of medical practitioners in providing an ever-increasing service in preventive medicine through the office of the family physician and specialist. The private offices of physicians and dentists have become health centers, from which flow protective treatments for smallpox, diphtheria, and whooping cough, examinations for early tuberculosis and other departures from physical and mental health, studies for the discovery of infectious syphilis and gonorrhea, programs for the improvement of maternal and child health, utilization of accepted procedures in the fight against cancer and heart disease. There have been no public immunization clinics for diphtheria in Detroit since 1928. Nevertheless, 53 per cent of the children born in that city are known to receive the protective treatment by the time they reach their first birthday, 70 per cent by the age of 2. Sixty thousand children come to school each fall fortified with the report of a complete examination at the hands of the family physician. Parents have actually been sold the idea that preventive medicine is a necessity, a purchasable commodity, as essential to the family as food, fuel, clothing, and shelter. Services are available within the financial capacity of the individual family.

More recently the able health commissioner and his staff have embarked upon a plan to build the interests and resources of the manufacturer and the distributor of food products into a unified and homogeneous program, to serve the public by promoting and maintaining a high level of cleanliness in all food handling establishments, including hotels, restaurants, lunch counters, taverns, and food manufacturing plants. Industry must bear a responsibility in the promotion of satisfactory sanitation control. Industry should use competent, trained personnel for their own sanitation programs, and such programs should be carried on with the coöperation of health departments. While the provision for supervisory and educational service remains an obligation of the trained sanitarian employed by the health department, such service can never adequately replace the contribution to food sanitation which can be made by a health-minded employee. The occasional visit to a food handling establishment is no substitute for continuous supervision by the employee and by management. Wherever practical, industry should be encouraged to employ a qualified individual for sanitary self-supervision. It has been done in the milk field. It is highly desirable that all food handling establishments, regardless of size, have some specific person responsible for the sanitary condition of the establishment. Health education at maximum effectiveness must be interwoven into the fabric of the food health service and must be understood and lived by those whose actions and behavior we aim to influence.

The needs for cleanliness have increased as the social, business, and living habits of people have changed. Problems of food distribution and service have evolved with the ever-varying patterns of production and consumption. What is the program of food sanitation for this country? Are there 30,000 different programs, each conforming to the pattern of the local health jurisdiction? Every man of sanitary science has faced these new problems and has had to make deci-

sions. There are periods of confusion and indecision. The business man is confounded by the multiplicity of codes and regulations and by overlapping jurisdictions.

The National Sanitation Foundation is an outgrowth of an interest developed on the one side by the public health official, on the other by business and industry. It affords a common meeting ground to discuss problems of mutual concern and to dispel the veil of uncertainty and ignorance which enshrouds the progress of each group. Only through understanding contact with the public health agencies, industry, and business, is it possible for the Foundation to contribute toward the solution of the most current and pressing problems. Research in sanitation must be as unending as sanitation itself. Each new development points the way to the discovery of newer and better agents and methods. In sponsoring research and health education the Foundation has been fortunate in having the aid of an able Consulting Board *

and Committee on Research and Education. The Board was impressed by the fact that there had been little basic work done to determine some of the sanitary aspects of dishwashing and this became its first study.[1-4] Codes are found throughout the country requiring 2 to 3 minutes' exposure to water at 170° to 180° F. for all dish sanitization irrespective as to whether the work is done by hand or machine. Mallmann and his associates, as a result of studies supported in part by the Foundation, recommend a rinse period of 10 seconds at 170° F. for single tank dishwashing machines. They recommend a temperature of wash water between 130° and 140° F. with a time interval of not less than 30 seconds; the flow pressure of water should be not less than 20 lbs. per sq. in. They have developed a Surface Analyzer with test plates which measures washing efficiency in soil units. These findings and recommendations have been adapted to routine field work. Other studies aided in part by the Foundation include methods of measuring end results in utensil sanitization,[5, 6] methods for testing various properties of dishwashing compounds,[7] factors affecting the properties of quaternary ammonium compounds as sanitizers,[8, 9] methods for testing the efficiency of high temperature-short time milk pasteurization.[10] Analyses have been made of legislative requirements and sanitary practices indulged in by health departments.

Media are being developed for the dissemination and acceptance of recommendations emanating from research and educational studies so that the findings may be more widely known to both public health and industrial groups throughout the country. Noteworthy is the holding of the first National Sanitation Clinic[11] at Ann Arbor in June, 1948, which brought together for four days 400 authorities from industry and public health. The clinic dealt with twelve major subjects involving food distribu-

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tion and service including (1) sanitation education, (2) sanitation supervision and administration, (3) eating and drinking ordinances and codes, (4) dishwashing, (5) detergents and sanitizers, (6) sanitary requirements and installation of food service equipment, (7) soda fountain and luncheonette equipment construction and installation, (8) food handlers' training program, (9) vending machines, (10) bars and taverns, (11) food protection, and (12) rodent and insect control. Out of the clinic came an increased respect of public health for industry and of industry for public health. Both were drawn together by mutual problems and mutual objectives. There was common and vigorous accord on the need for more effort by national, state, and local agencies to improve sanitation.

There should be a national sanitation program sponsored and planned by the U. S. Public Health Service, in coöperation with state and local health authorities. Industry as well as the public is entitled to know what the program of sanitation is for the United States. Generous appropriations have been made by Congress to support plans for the control of venereal diseases and tuberculosis, for cancer services, heart disease, and dental health. Funds are available for the elimination of stream pollution. However, the basic problem of completing the coverage of our nation with full-time local health units served by trained personnel and emphasizing the needs in public health nursing and sanitation, remains ahead of us. The constructive and positive aspects of health education and food cleanliness must be woven into the fabric of the local health department and made a prime objective of all food service industries. In no other manner can we expect to realize and enjoy the fruits of research and education in this field.

A national sanitation program may well embrace the following seven points:

1. *Trained personnel*—Provision for adequately trained and experienced personnel in the field of public health is an absolute necessity to gain proper respect for the sanitation movement. Healthmen have been criticised in the past, and will be criticised, as long as the liaison officer with industry remains the politically-appointed inspector in the local health department. The American Public Health Association through the Committee on Professional Education should define the terms of sanitary science, the duties and responsibilities of the public health engineer, the sanitarian, and the sanitary inspector. Qualifications together with acceptable nomenclature are essential to uniform practice. Industry and the public are entitled to know "What is a Sanitarian?" Is he a street cleaner who pushes a two wheeled cart, or is he a college graduate prepared to direct intelligently the health programs of industry and the health department? Should the men of sanitary science be trained in our great universities and schools of public health, concurrently with other personnel to be employed by full-time health departments? Possibly the leaders and supervisors should have an academic background in biology and public health, while the sanitary inspector with lesser responsibility may receive inservice and orientation training! At least there is no place in the picture for unqualified personnel; and public funds should not be available for the employment of political hacks in the name of public health. To employ such individuals engenders distrust and contempt both on the part of the public and men of industry.

2. *Research in sanitation*—A national program can and should be developed as a potent tool in the movement for better sanitation. There is a changing cycle in environmental health which has brought forth increased sanitation problems. Accordingly, appropriate research in the hands of qualified men in sani-

tary science should be promoted and supported in the field of food sanitation, and media should be developed for the dissemination and acceptance of such research by the public health and industrial groups.

3. *Sanitation education* — Education concerning sanitation is essential to help in measures for the improvement of health and the satisfactions of living as well as for the prevention of communicable diseases. Information may be made available through various media including (1) the spoken word, (group meetings, person-to-person, radio, television), (2) printed matter (newspapers, magazines, bulletins, newsletters, posters, car and bus cards, pamphlets, portfolio presentations for speakers, comics, cartoons), and (3) visual aids (photographs, films and slides, motion pictures, exhibits and displays). The channels of communication are innumerable. A national sanitation program would provide a clearing house for ideas, methods, and media, both old and new, for use in the development of sanitation education. There is need for a sanitation slogan, likewise a symbol, to emphasize the positive aspect of cleanliness. Possibly in this manner sanitation can be glamorized and removed from the dismal abyss of street cleaning and rat destruction.

4. *National sanitation clinic* — The pattern of a national sanitation clinic has already been established. However, this can very readily be altered and improved upon. Periodically, the major subjects of food sanitation should be reviewed by authorities from industry and public health. The questions which need answers fall into three classes: (1) those that can be answered by an analysis of research material available, (2) those that cannot be answered except by the process of best judgment based upon existing experience, and (3) those requiring additional research and study. The holding of regional clinics would do much to develop the scope and influence of such conferences by focusing the attention of industrial and public health groups upon the problems of sanitation.

5. *Testing laboratory*—The provision of an adequate testing laboratory is fundamental to research and the orderly progress of health education. The need has long been felt by both industry and public health people. Many of the current problems concerning new equipment and new products might have been settled long ago.

6. *Publication*—True, there are several journals in the field of sanitation at the present time but none successfully covers the field of environmental health. From industry, comes the demand for a single authoritative journal, the publication of which will obviate the need of keeping track of a number of journals in the health field which but occasionally contain contributions of interest to those handling food services and equipment.

7. *Textbooks*—With a view to sanitary practices, an analysis should be made of the various textbooks used in schools, and pamphlets and other material prepared for public consumption. There should be a substantial basis for public educational programs by schools, health departments, and other agencies. Every individual during the early years of life should have some appreciation of the whole subject of sanitation. Some young people may even choose to enter the profession of sanitary science and help fill the voids in the health department ranks. The task of industry is materially eased by the employment of personnel possessed of an appreciation of a subject which is materially a part of the job for which the individual is employed.

Wisdom and statesmanship are vital to orderly progress in sanitation. The men of sanitary science are outnumbered in our health departments only by the public health nurses. The nurse has done much to elevate the quality of her contribution to the health program; the

man of public health sanitation should do no less. In this endeavor he requires the sympathetic and understanding support of every public health administrator.

REFERENCES

1. Vaughan, Henry F. The National Sanitation Foundation. *A.J.P.H.*, 36:607 (June), 1946.

2. Mallmann, W. L., DeKoning, Paul, and Zaikowski, Leo. Critical Study of Machine Dishwashing. *A.J.P.H.*, 37:390 (Apr.), 1947.

3. Mallmann, W. L., DeKoning, Paul, Zaikowski, Leo, and Kahler, David. A Study of Mechanical Dishwashing. *Research Bull. No. 1*, National Sanitation Foundation, Oct., 1947.

4. Mallmann, W. L., Zaikowski, Leo, and Kahler, David. A City Department of Health Program on the Improvement of Mechanical Dishwashing. *A.J.P.H.*, 38:239 (Feb.), 1948.

5. Buchbinder, Leon, Buck, T. C., Jr., Phelps, P. M., Stone, R. V., and Tiedeman, W. D. Investigations of the Swab Rinse Technic for Examining Eating and Drinking Utensils. *A.J.P.H.*, 37:373 (Apr.), 1947.

6. Food Utensil Sanitation. Report of the Subcommittee of the Committee on Research and Standards. *A.P.H.A. Yearbook*, Supp. to *A.J.P.H.*, May, 1948, p. 68.

7. Walter, W. G. Test for Detergents. *A.J.P.H.*, 38:246 (Feb.), 1948.

8. Armbruster, E. H., and Ridenour, G. M. A New Medium for Study of Quaternary Bactericides. *Soap and Sanitary Chemicals*, Aug., 1947.

9. Ridenour, G. M., and Armbruster, E. H. Some Factors Affecting the Properties of Quaternary Ammonium Compounds as Sanitizers. *A.J.P.H.*, 38:504 (Apr.), 1948.

10. To be published in *J. Milk & Food Technology*.

11. *Report of the First National Sanitation Clinic*, National Sanitation Foundation, July, 1948.

International Adoption of Principles of Morbidity and Mortality Classification*

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ADOPTION by the First World Health Assembly at Geneva on July 24, 1948, of Regulations No. 1 carried to completion one of the tasks which were given to the Interim Commission of the World Health Organization by the International Health Conference held in New York City in June and July, 1946.[1] These regulations, which are to be known as "Nomenclature Regulations—1948," provide for the formal adoption, internationally, of the Sixth Revision of the *International Lists of Diseases and Causes of Death* as well as uniform procedures in the compilation and publication of morbidity and mortality statistics. In conformance with the constitution of the World Health Organization, the regulations will come into force for each member nation one year from date of adoption except for those nations which formally record rejection or reservations within that period.

For nearly fifty years the *International List of Causes of Death* has been used by an increasing number of national and other agencies in the compilation of statistics of causes of death. The Sixth Decennial Revision Conference, following past tradition, met in Paris from April 26 to 30, 1948, at the invitation of the French Government. The Conference marked the beginning of a new era in international vital and health statistics. It adopted a single comprehensive list of diseases, injuries and causes of death for use in the compilation of statistics of both morbidity and mortality. In addition, it recommended the adoption of a far-reaching program of international coöperation in vital and health statistics. Its recommendations were directed to national governments and to the World Health Assembly.

It will be recalled that the Fifth International Conference for the Revision of the *International List of Causes of Death*, held in Paris in October, 1938, requested the United States to continue its investigations of the "joint-cause-of-death" problem during the decade 1938–1948 on a slightly wider basis, in cooperation with other countries and organizations. In accordance with this resolution, the Secretary of State of the United States appointed the U. S. Committee on Joint Causes of Death in 1945. Representatives of Canada, Great Britain, and the Health Section of the League of Nations were included in its organization. The work and recommendations of this committee laid the basis for the sixth decennial revision and the adoption of international rules for clas-

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sification and tabulation. At the last meeting of the A.P.H.A., the U. S. Committee was awarded a Lasker Group Award for its accomplishments.

The adoption of the *International List of Causes of Death* has not led to complete international comparability of cause-of-death statistics. Aside from the questions resulting from differences in medical practice in different countries, the principal obstacle to international comparability has been the differences in procedures for classifying the main cause of death when two or more conditions were stated on the medical certificate of death. The problem was recognized by Farr from the very beginning of modern vital statistics, and his early letters to the Registrar General of England and Wales indicated the rules of selection that should be followed in such instances. At the First Revision Conference in 1900, Bertillon emphasized again the need for uniform rules for selection of the primary cause of death and proposed certain rules for international use. Similar rules were formulated by registration offices of other countries, including The Registrar-General's Office of England and Wales, although England did not adopt the *International List* until 1911.

In the United States, the Division of Vital Statistics of the Bureau of the Census appreciated that the uniform application of the rules required the recording of all decisions in order to establish precedents for similar combinations in the future. The division realized all along that the ultimate solution of the problem depended upon a painstaking comparison and study of individual cases, with thorough investigation of actual pathological relations. Neither the titles nor subtitles could be treated as units, but individual terms must be considered, together with the reporting habits of the physicians. These were the guiding principles by which the Division of Vital Statistics under Wilbur and Van Buren compiled the *First Index of Joint Causes of Death,* published in 1914, from the accumulated experience of our own national vital statistics. Subsequent editions have been issued which adapted the *Manual of Joint Causes of Death* to the various revisions of the *International List*. These manuals greatly aided the uniform and consistent classification of causes of death in this country, and their usefulness was recognized by many other registration offices.

A second obstacle to international comparability of cause of death statistics has been the lack of a uniform medical certificate. Various wordings for such a certificate have been tried and discarded over the years. The Committee of Expert Statisticians of the Health Section of the League of Nations studied the matter extensively and made specific recommendations in a report issued in 1925. The report recommended that instead of asking for the primary and contributory causes of death in that order, which had been the usual practice up to that time, the medical certificate of death should call first for the immediate cause of death (i.e., the disease, injury, or complication which caused death), and then the antecedent morbid conditions, if any, that gave rise to the immediate cause of death. Great Britain, whose representatives had been among the leaders in the deliberations of this committee, adopted in 1927 a medical certificate of death which followed closely these recommendations. The Vital Statistics Section of the Canadian Public Health Association also made careful studies of medical certification in the early 1930's and adopted in 1935 a medical certificate quite similar to the English certificate. The 1939 revision of the Standard Certificate of Death in the United States incorporated the essential elements of the League of Nations' recommendations; namely, asking first for the imme-

diate cause of death and then the antecedent causes, if any. However, the limited space available for medical certification on the U. S. Standard Certificate of Death precluded the inclusion of instructions given on the English and Canadian certificates.

All of these attempts to secure an adequate medical certificate of death have been aimed toward a better understanding, upon the part of certifying physicians, of the kind of information the vital statistician must have at his disposal in order to produce the most meaningful statistics of causes of death. From the time of Farr, our statistics of causes of death have been compiled on the basis of the disease or event (in case of deaths from external causes) that initiated the train of events leading to death. The rules of Bertillon were drawn up on this basis. Both the U. S. *Manual of Joint Causes of Death* and the English method followed the general rules formulated by Bertillon. However, the method of application of the rules in the United States and in England and Wales differed. In the United States, reliance was placed mainly on the joint-cause relationships given in the *Manual of Joint Causes of Death*, while the English based selection on detailed rules formulated on the basis of Bertillon's rules. Beginning in 1940, the selection of the main cause of death in England and Wales has been according to the doctor's entries on the medical certificate with the aid of a minimum number of rules for handling special cases.

The foregoing is a brief background of the work on joint causes of death up to the time the U. S. Committee on Joint Causes of Death undertook to study the problem. In their study, 10,848 microfilm copies of death certificates for Maryland and upstate New York were coded according to (1) the joint cause procedure as now followed in the United States, (2) a modification of this procedure which omitted from the primary cause assignment those terms reported as "other conditions" contributing to the death but not related to the immediate cause, and (3) the method used in England and Wales.

The study indicated that assignment of the main cause of death for this sample of death certificates agreed in 89 per cent of the individual cases whether assignment was made according to the usual United States procedure or by the English method. However, because of compensating assignments, the tabulated data showed an agreement of 94 per cent.

When the results of the English method were compared with those obtained by the modified United States joint-cause procedure, it was found that 95 per cent of the individual assignments of cause of death were in agreement. Compensating assignments increased the comparability to 97 per cent.

These results indicated that the arbitrary selection of the primary cause of death resulting from the use of the *Manual of Joint Causes of Death* as a classification tool was not primarily responsible for the apparent discrepancy between cause-of-death assignments and clinical interpretation of causes of death. The main source of difficulty appeared to be the American practice of considering every cause stated, regardless of its order and position on the medical certificate. It should be recalled that one of the objectives of the 1939 revision of the Standard Death Certificate was to separate the diseases and conditions directly leading to death from other contributing conditions of importance but not related to the disease responsible for death. This separation, however, had not been taken into account in our coding procedures.

Prior to the study, however, the U. S. Committee on Joint Causes of Death had recommended that the *International List of Causes of Death* be expanded so that a single statistical classification of diseases, injuries and causes of death

could be used in the tabulation of both morbidity and mortality data. The committee, recognizing both the physical impossibility and the lack of necessary experience for revising the *Manual of Joint Causes of Death* to accommodate the expanded base of the proposed classification, recommended against such a revision.

Further, the committee was of the opinion that the ultimate solution of the joint-cause problem in terms of more accurate and useful statistics could be achieved in other ways. Therefore, the U. S. Committee on Joint Causes of Death recommended to the Expert Committee of the World Health Organization (Interim Commission) and the Sixth Decennial Revision Conference that three fundamental steps be taken. These were: (1) the adoption of a uniform medical certificate of cause of death designed to elicit the necessary medical information, (2) the formulation of rules for the selection of the underlying cause of death, and (3) the institution of a program for medical students and practitioners to promote a better understanding of medical certification.

These recommendations were accepted in substance by both bodies. Regulations No. 1 adopted by the World Health Assembly provides for their acceptance internationally. For the first time, therefore, we have international acceptance of a uniform medical certificate of cause of death and uniform rules for the selection of the main cause of death. The international rules are, necessarily general in nature to the extent that they have applicability to all countries. The adaptation of these rules to take care of local peculiarities in reporting has been left to individual countries which will incorporate supplementary rules in coding manuals.

It is of particular interest to note that the international rules are not exactly new. They are largely but restatements of some of the general rules proposed by Bertillon in 1900. More particularly, they represent restatements of the special rules which the Registrar General of England and Wales has found necessary in the coding of causes of death. As we have seen from the study of the U. S. Committee on Joint Causes of Death, the application of the U. S. *Manual of Joint Causes of Death* and British rules to a sample of death certificates filed in Maryland and upper New York State show a surprisingly close correspondence. This close adherence is undoubtedly because they are both based on the same general principles.

The World Health Organization is publishing the new classification in a Manual which will consist of two volumes. The Manual will appear in English, French, and Spanish editions. Volume I will contain in addition to the Introduction, List of Categories and Tabular List of Inclusions, a section on medical certification and rules for classification and special lists for tabulation purposes. Volume II forms a comprehensive alphabetical index of diagnoses and conditions. For the first time, the English-speaking countries of the world will use the same manual, which will be a further aid to comparability of international statistics.

Implicit in the adoption of the new international joint cause procedures is the use of the international form of medical certificate. The new Standard Certificate of Death to be introduced next year in this country provides for the inclusion of this form of medical certification. The primary responsibility rests with the certifying physician to decide which morbid condition led directly to death, and to state the antecedent conditions, if any, which gave rise to this cause with the underlying cause stated last. The general rule for classification is to select as the cause to be tabulated, the underlying cause

which was the starting point in the sequence of events leading up to the direct cause of death. Exceptions to this general rule are incorporated in the *International Statistical Classification of Diseases, Injuries and Causes of Death* and in a coding instruction manual which the National Office of Vital Statistics will issue to amplify the international rules for use in this country. The primary purpose of such rules is to obtain consistency in assignments when required medical information is omitted or entries are inverted.

In adopting the new coding procedures, coding clerks should become thoroughly familiar with the Tabular List of Inclusions as well as the new rules. However, coders will find the procedure more interesting and satisfying since the logic of the assignment is seen more clearly than was frequently the case in coding by means of the *Manual of Joint Causes of Death*. In order to assist the vital statistics offices in making the transition between the old and new classification procedures, the National Office of Vital Statistics has, with the coöperation of the state bureaus of vital statistics, sponsored an orientation course on the new procedures. During the months of September and October, 3 day sessions of instruction were held in Washington, D. C., New York City, New Orleans, Chicago, Denver, and San Francisco, to which the state bureaus of vital statistics invited coders from various agencies. A more intensive training course will be offered during the coming year to states requesting such a service from the National Office of Vital Statistics if circumstances permit.

Another means of obtaining greater uniformity in coding practices is afforded by the comparison of cause-of-death assignments as made by the state bureaus of vital statistics and the National Office of Vital Statistics. These comparisons will be made, as in the past, on a sample of death certificates periodically for states requesting them, and differences in cause-of-death assignments will be reconciled. The purpose of these comparisons, however, is not to correct statistics but to point out errors in the application of the various rules.

Every revision of the international list or any change in coding procedures in the past has resulted in a break in the comparability of mortality trends. For many conditions, it is not expected that the problem of comparability with past experience would be any more serious than in past revision years. For certain causes of death, such as diabetes mellitus, where the change will be considerable, the statistics will provide more meaningful data by eliminating from primary mortality tabulations diabetes reported as a contributory cause of death. To assist in the evaluation of the effects of all such changes, the causes of death for 1949 are to be coded and tabulated by the National Office of Vital Statistics according to the old and new joint-cause procedures.

The new international classification of diseases, injuries and causes of death and the revised joint-cause procedure will open up great possibilities for improving the quality of cause-of-death statistics. However, there are a number of problems to overcome before its full possibilities can be realized. The most serious of these is securing improvement in the quality of certification. A step in this direction has been taken by including in the new standard certificate of death the international form of medical certification.

A great deal of time and effort will need to be expended during the coming year on these problems. The statistician should secure the coöperation of health officers in the task of promoting a better understanding by the medical practitioner of the medical certificate form. In the beginning, registration offices will have to do considerable querying in

order to be assured that the certifying physician has made entries in the correct order. The rewards of such efforts, however, will be great in improving the quality and the meaningfulness of our cause-of-death statistics. In addition, coding will be simplified when the entries on the certificates are made in the correct order. Fewer problems in the selection of the underlying causes of death will arise in these instances.

The expansion of the *International List* to cover causes of illness as well as causes of death opens up large opportunities for full utilization of the growing volume of morbidity data. Country after country signified their interest in a classification suitable for morbidity as well as mortality statistics. We must recognize, however, that the procedures for classification of mortality data have been based on years of experience. The handling of statistics of illness is relatively new, and, furthermore, the problems involved in their statistical classification are not so clear-cut.

Morbidity is far less definite than mortality. The occurrence of death is a discrete event, and the number of such events can be counted. An illness, on the other hand, varies from a minor deviation from normal health to the bed or institutional cases of chronic disease. For this reason, a cause of illness is not so easily defined as a cause of death. Furthermore, in many studies on morbidity, it is far more useful to study all the diagnoses involved rather than assign the illness to a single condition.

The Expert Committee of WHO recognized that the time had not arrived for laying down specific coding procedures in the handling of morbidity data. Instead, it called attention in its discussions of morbidity coding to the need for further studies of the problem. In the introduction to the *Code for the Tabulation of Morbidity Statistics* issued by the Medical Research Council of Great Britain there are suggested rules for the selection of the principal and contributory diagnoses, and in the introduction of the *Manual for the Coding of Causes of Illness* issued by the U. S. Public Health Service there is a further discussion of this problem with particular attention paid to the coding of multiple diagnoses. The next ten years should show a considerable progress in the development of procedures for the handling of morbidity data. In spite of the growing usefulness of morbidity statistics, mortality statistics remain the only body of disease statistics available universally for the study of many health conditions. Efforts to secure more accurate and reliable cause-of-death statistics will continue to be an important function of registration offices.

REFERENCE

1. Nat. Off. Vital Stat. The Sixth Decennial Revision of the *International Lists of Diseases and Causes of Death. Vital Statistics—Special Reports*, Vol. 33, No. 2 (Nov. 26), 1948.

Plans for United States Coöperation with the World Health Organization in the International Influenza Study Program*

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DURING the 4th International Congress for Microbiology held in Copenhagen in July, 1947, it was proposed that a program of international collaboration be initiated in the field of influenza. The overall purpose of the proposal was to set up the machinery necessary to protect the world population in so far as feasible against recurrence of another disastrous pandemic of influenza such as was last experienced in 1918. In September, 1947, the Interim Commission of the World Health Organization recommended that an International Influenza Center be established under Dr. C. H. Andrewes at the National Institute for Medical Research in London to study and analyze newly isolated strains of influenza virus, and advised that all nations set up organizations to collaborate with that Center. Subsequently, on December 4, 1947, Dr. Andrews addressed a letter to the Surgeon General of the Public Health Service, specifically inviting the participation of the United States in the coöperative program.

The thought behind the original recommendation of the Interim Commission was that, if the suggested machinery for promptly isolating new strains of the virus from outbreaks of influenza were to work smoothly, a vaccine effective against the particular strain of virus which is potentially able to cause a pandemic of influenza would be available for use before the disease itself had spread extensively. For example, under ideal circumstances, if such a strain were first isolated outside the continental United States, it could be incorporated in commercial vaccine and be available for protection of the population of this country before the disease had reached these shores. Or, even, if the strain were isolated in one corner of this country, it could be made available in commercial vaccine before the disease had extended over the entire nation. Admittedly, these examples ignore existing practical limitations in vaccine production which cannot easily, if at all, be resolved. Nevertheless, the peril to the nation and to the entire world of a recurrence of a pandemic of influenza is so great that almost any steps would be justified which, in the minds of authorities, might avert such a disaster.

Dr. Andrewes' letter inviting the United States to participate in the World Health Organization influenza study program was referred by the

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Surgeon General of the Public Health Service to Dr. R. E. Dyer, Director of the National Institutes of Health, who, in turn, passed it on for advice to the Virus and Rickettsial Study Section. That body, which includes several of the nation's leading authorities on influenza, formulated at its meeting on January 26, 1948, the following recommendations which were later transmitted by Dr. Dyer to the Surgeon General:

> The Virus and Rickettsial Study Section is in hearty agreement with the concept of the World Health Organization to obtain information as to world-wide occurrence of influenza and the properties of strains of the viruses.
>
> The organizations in the United States, such as the Influenza Commission of the Army Epidemiological Board, which have, since 1941, maintained a continuous interest in these problems, have established listening posts, laboratories, and a Strain Study Center which have already demonstrated the effectiveness of such a program.
>
> It can be anticipated that information and materials obtained by all these organizations will be made available to the World Health Organization.
>
> It is recommended that the Strain Study Center operated at present at Cornell University College of Medicine under the direction of Dr. T. P. Magill be maintained, adequately supported, and be designated the National Strain Study Center for the United States of America.
>
> It is also recommended that the facilities of the U. S. Public Health Service be utilized to the fullest extent in this connection and, if necessary, be expanded and coördinated with other existing organizations.
>
> It is suggested that a committee designated by the Surgeons General of the Army, Navy, Public Health Service, and Air Force, be empowered to implement the program.

Following the suggestion of the Study Section, a meeting attended by representatives of the Surgeons General of the Army, Navy, Air Force, and Public Health Service was held in Washington on April 23, 1948, to discuss the implementation of the influenza program within the United States. At this meeting, the recommendations of the Virus and Rickettsial Study Section were adopted essentially in their entirety. It was decided to build the program in the United States largely around the National Strain Study Center, and to utilize the existing facilities for investigating influenza, especially those under the Army Commission on Influenza. It was also recommended that an Influenza Information Center be established in the Division of Research Grants and Fellowships at the National Institutes of Health to administer the World Health Organization influenza program in this country and to serve as the liaison office between the International Influenza Center in London and the coöperating laboratories in the United States. Such an Influenza Information Center has since been set up and is now participating in the international program.

FUNCTIONS OF THE INFLUENZA INFORMATION CENTER

As it has been developed, the Influenza Information Center is to have three principal functions: (1) to serve as a clearing house in the United States for the receipt and dissemination of information regarding influenza and the virus responsible for the disease; (2) to coördinate the work of the diagnostic "watch stations" needed in the United States for the laboratory identification of cases of influenza and the isolation of new strains of the influenza virus; and (3) to aid in arranging conferences looking toward possible improvement of influenza vaccine by the incorporation of newly isolated strains of virus.

The most urgent and immediate responsibilities of the Information Center are related to the prompt reporting of outbreaks of the disease and the establishment of an appropriate series of laboratories which could be called on to supply laboratory service essential to the serological diagnosis of cases of influenza and for the isolation of the

virus responsible for these cases. These responsibilities will be described in brief detail.

REPORTING OF OUTBREAKS

The reporting of outbreaks of influenza should in large part be taken care of through the existing reporting channels of the Division of Public Health Methods of the U. S. Public Health Service. However, the explosive character of most influenza epidemics and their exceedingly rapid spread over extensive areas present admittedly serious obstacles which only time and experience can fully resolve. Furthermore, it is unfortunately true that many cases of influenza are not reported by local physicians or by health officers until outbreaks have already attained comparatively serious proportions. The laboratory identification of most cases of suspected influenza is seldom obtained, and reported outbreaks of the disease cannot in most instances be authoritatively described as caused by influenza virus. One of the major responsibilities of the Influenza Information Center, then, is the encouragement of physicians and local health officers to establish definitively the etiology of cases of respiratory infection suspected to be caused by the influenza virus. Steps are being taken to focus the attention of medical practitioners on the importance of influenza and the need for reporting outbreaks of the disease, through motion pictures, exhibits, and announcements concerning the influenza program.

On receipt of information by the Information Center that a significant outbreak of respiratory disease suspected to be influenza has occurred in a given community, the Center will alert laboratories in the region, asking them to carry out serological tests on patients for the presence of antibody against one of the known strains of influenza virus. Likewise, the laboratories will be asked to try to isolate the virus from these patients. Once the virus, if isolated, is identified, reports will be broadcast as to the nature of the etiological agent responsible for the disease.

DIAGNOSTIC SERVICE

In an effort to meet at once the potential need for essentially nationwide diagnostic laboratory facilities, it has been recommended that a series of strategically located laboratories in the United States be formally invited to participate in the program, these laboratories to be called on for service in their immediate localities as soon as an outbreak of disease suspected to be influenza is recognized. It is not considered reasonable to set up *new* laboratories exclusively for this diagnostic function. Instead, it is hoped that existing laboratories which are already equipped for general diagnostic purposes, or else existing laboratories which are presently engaged in research on influenza, can serve in the program, either on their own initiative or when requested to do so by the Information Center in the event of an outbreak of suspected influenza in their locality.

It is anticipated that, because of the simplicity of the technics involved (principally the agglutination-inhibition test), many laboratories could quite easily prepare to perform the serological tests upon patients with suspected influenza. On the other hand, only few stations could wisely attempt, in addition, the isolation of strains of the virus from fresh cases. Accordingly, it has been proposed that two levels of diagnostic stations be set up: No. 1 stations, for serological testing alone; and No. 2 stations, for serological testing *and* isolation of virus.

When a No. 1 station reports to the Information Center that it has noted elevated titers of influenza antibody for any outbreak of respiratory disease, the nearest No. 2 station will be asked to

FIGURE 1. LABORATORIES IN THE UNITED STATES PARTICIPATING IN THE WORLD HEALTH ORGANIZATION INFLUENZA STUDY PROGRAM, UNDER THE INFLUENZA INFORMATION CENTER AT THE NATIONAL INSTITUTES OF HEALTH.

send into the affected area a team of investigators experienced in the technics of isolating the virus. The No. 2 stations would, presumably, be able to carry on the complete service, including the attempted isolation of the virus, whenever an outbreak of influenza or respiratory disease simulating influenza occurs in their own community. Once a strain of virus has been isolated, it would be sent at once for a complete antigenic analysis to the National Influenza Strain Study Center, which is under the direction of Dr. T. P. Magill, Long Island College of Medicine, Brooklyn, N. Y.

PARTICIPATING DIAGNOSTIC LABORATORIES

It is hoped that all diagnostic laboratories in the nation will, as opportunity permits, use their facilities to assist the influenza program. However, it has been deemed wise that a more formal invitation to participate in the program be extended to certain laboratories which are believed to be especially qualified because of their strategic location or because of their personnel. The laboratories which are to be formally invited to participate can conveniently be placed in three groups:

1. Those operated by one of the Services of the federal government
2. Those operated by local or state health departments
3. Those engaged in influenza research through support from the federal government

It is believed that the costs of participation in the program, so far as the laboratories of the first two of the groups just mentioned are concerned, could be met through the laboratories' own budgets, since the services involved would be part of the regular responsibility of these laboratories to the local, state, or federal governments. It is proposed that the laboratories of the third group would participate primarily on an emergency basis, and that, in an emergency, they would be willing temporarily to suspend their usual research activities, if necessary, to take on the diagnostic function. The funds originally supplied to these laboratories by the federal government for research purposes could, by administrative authorization, then be used to pay the costs of

participating in the influenza program. A list of the laboratories which have been formally invited by the Influenza Information Center to participate in the influenza program and which have accepted this invitation follows. The location of these laboratories is also indicated in Figure 1.

Laboratories Which Are Participating in the Influenza Study Program

Laboratories Operated by the Federal Government:

Department of the Army:

First Army Area Medical Laboratory, 90 Church St., New York, N. Y.
Second Army Area Medical Laboratory, Ft. G. G. Meade, Maryland
Third Army Area Medical Laboratory, Ft. McPherson, Georgia
* Fourth Army Area Medical Laboratory, Ft. Sam Houston, Texas
Fifth Army Area Medical Laboratory, Ft. Sheridan, Illinois
* Sixth Army Area Medical Laboratory, Ft. Baker, California

* *Department of the Navy:*

Naval Medical Research Unit No. 4, Great Lakes, Illinois

* *Public Health Service:*

Division of Infectious Diseases, National Institutes of Health, Bethesda, Maryland
Virus Laboratory Branch of Communicable Disease Center, Montgomery, Alabama
Rocky Mountain Laboratory, Hamilton, Montana

Laboratories Operated by State and Local Governments:

State Laboratories:

* California, Department of Public Health, Berkeley
Florida, Board of Health, Jacksonville
* Illinois, Department of Public Health, Chicago
Indiana, State Board of Health, Indianapolis
Louisiana, Department of Health, New Orleans
Maryland, Department of Health, Baltimore
Massachusetts, Department of Public Health, Boston
* Minnesota, Department of Health, Minneapolis
Missouri, Division of Health, Jefferson City
Nebraska, Department of Health, Lincoln
Nevada, Department of Health, Reno
New Jersey, Department of Health, Trenton
* New York, Department of Health, Albany
North Carolina, Board of Health, Raleigh
Ohio, Department of Health, Columbus
Oklahoma, Department of Health, Oklahoma City
Oregon, Board of Health, Portland
South Carolina, Board of Health, Columbia
Texas, Department of Health, Austin
Utah, Department of Health, Salt Lake City
Vermont, Department of Public Health, Burlington
Virginia, Department of Health, Richmond
* Washington, University of Washington, School of Medicine (acting for Department of Health), Seattle
Wisconsin, Board of Health, Madison
Wyoming, Board of Health, Cheyenne

Municipal Laboratories:

District of Columbia, Health Department, Washington
Los Angeles, Department of Health
New York, Public Health Research Institute

* Laboratories equipped for virus isolation *and* serological tests. Those not so marked usually equipped only for serological tests.

Insular and Territorial Laboratories:

Territory of Hawaii, Department of Health, Honolulu
* Government of Puerto Rico, School of Tropical Medicine, San Juan
Territory of Alaska, Department of Health, Anchorage

Laboratories Supported by Funds Supplied by the Federal Government:

* *Contractors under Commission on Influenza, Army Epidemiological Board:*

Dr. Thomas Francis, Jr., University of Michigan
Dr. T. P. Magill, Long Island College of Medicine
Dr. Jonas E. Salk, University of Pittsburgh
Dr. Harry M. Rose, Columbia University
Dr. William M. Hale, University of Iowa

* *Contractors under Office of Naval Research:*

Dr. W. Henle, Children's Hospital of Philadelphia
Dr. T. G. Ward, Johns Hopkins University

* *Grantees under Research Grants Program, U. S. Public Health Service:*

Dr. E. C. Curnen, Yale University
Dr. W. Henle, Children's Hospital of Philadelphia
Dr. M. A. Lauffer, University of Pittsburgh
Dr. G. R. Leymaster, University of Utah
Dr. C. G. Loosli, University of Chicago
Dr. H. Pinkerton, St. Louis University
Dr. D. H. Sprunt, University of Tennessee
Dr. T. B. Turner, Johns Hopkins University

* Laboratories equipped for virus isolation *and* serological tests. Those not so marked usually equipped only for serological tests.

TRAINING OF TECHNICIANS

It is appreciated that some of the participating laboratories may desire to refresh one or more otherwise experienced technicians in the procedures for the serological tests or the virus isolation technics. Accordingly, provision has been made to train a selected number of such persons at the National Influenza Strain Study Center, Long Island College of Medicine, Brooklyn, N. Y. Unfortunately, such training cannot be given by the National Influenza Strain Study Center itself until February 1, 1949. However, Dr. T. P. Magill, Director of that Center, has offered to suggest a conveniently located laboratory where suitable technical training can be obtained before February 1, 1949, to anyone who inquires directly of him.

THE NECESSITY OF COÖPERATION

The World Health Organization influenza program will succeed in its purpose to prevent the recurrence of a pandemic of influenza only provided that a high level of coöperation is developed and maintained among practising physicians, diagnostic laboratories, and the offices charged with administration of the influenza program. The first requirement of a successful program is that physicians report promptly to their health departments or to one of the participating laboratories all suspected cases of influenza. As significant outbreaks occur, the appropriate administrative office—which, in the United States, is the Influenza Information Center at the National Institutes of Health, Bethesda, Md.—will take the necessary steps through the coöperating diagnostic laboratories to identify the reported disease definitively. When new strains of influenza virus are isolated from cases, these will immediately be studied antigenically in the National

Influenza Strain Study Center. Eventually, appropriate strains of the virus which have been isolated will be considered for possible inclusion in commercial vaccine.

With good fortune—and always provided that it received the high level of coöperation which is essential to its successful prosecution—the influenza program as conceived may finally lead to the discovery of superior immunizing varieties of influenza virus. When available in commercial vaccine, these new strains of virus may significantly reduce the potential hazard from influenza which constantly threatens the population of the United States and of the world.

The Lasker Awards

An Editorial in The New York Times

President Truman aptly bespoke the sentiments of the entire nation when, in his message congratulating the winners of the 1948 Lasker awards, he conveyed "the gratitude of the Government and of millions of Americans for outstanding contributions to the health of our people." Indeed, the presentation of these awards to three scientists and four public health administrators at the annual meeting of the American Public Health Association in Boston should serve admirably to stimulate greater professional attention and public interest in the fields of the seven 1948 recipients.

It was particularly notable that Dr. Selman A. Waksman of Rutgers University and Dr. Rene J. Dubos of the Rockefeller Institute should be cited jointly for their studies of the antibiotic properties of micro-organisms found in the soil. Most of the present success of the antibiotic drugs stems from their work. To Dr. Waksman goes the distinction of having discovered streptomycin, in addition to 100,000 other micro-organisms. Dr. Dubos led a research group that first studied germ-killers from the soil and found the first antibiotic used chemically.

The Lasker honor for Dr. Vincent du Vigneaud, head of the Department of Biochemistry, Cornell University Medical College, New York, recognized his studies of trans-methylation and contributions to the chemistry of biotin and penicillin. Outstanding administrative achievements earned the awards given to Dr. Martha M. Eliot, associate chief of the United States Children's Bureau, and Dr. R. E. Dyer, director of the National Institute of Health at Bethesda, Md. The Lasker group award went to the Department of Medicine and Surgery, Veterans Administration, and especially Dr. Paul R. Hawley, its former chief medical director, and Dr. Paul B. Magnuson, Dr. Hawley's successor. The thousands of lives saved by the work of these distinguished leaders in the medical field stand as indisputable evidence of their right to the honors that have justly been bestowed upon them.

—*New York Times*, November 19, 1948.

Influenza in California During 1947 and 1948*

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THE behavior of influenza in California during the past two years has been unusual in several ways. In the first place there have been two statewide epidemics of influenza A, the first over the period from January to May, 1947, and the second from November, 1947, to February, 1948. The first outbreak appeared to originate at the Fairfield Army Air Base, shortly after the onset of the disease at Lowry Field in Colorado, and thereafter spread rather slowly and circuitously over the state, causing an explosive outbreak in the Fresno schools as late as May, during exceedingly hot weather. Scattered cases occurred throughout the summer, but it was not until late November, 1947, that community outbreaks of considerable size were reported. The first of these was in the area east of Los Angeles. By late December, the large urban areas of the state were affected, and cases continued to occur during the following two months. The overall incidence of the disease in both epidemics can only be roughly estimated. It was presumably low for the state as a whole, though high in certain communities.

A second feature which was of interest was the marked antigenic variation between the strains of influenza A virus isolated during 1947 and 1948 and strains isolated previously. This was in keeping with reports from other parts of the country.[1–3] The implications of this marked change are of considerable importance, from the standpoints of epidemiology and of control, and the present paper is concerned largely with the effects of this antigenic variation.

Various methods have been used to investigate the strain variation and certain of its effects: (1) The relationship of the new (1947–1948) strains to "old" strains has been studied by means of cross-agglutination inhibition tests with strain-specific ferret antisera. (2) The antibody levels against various strains have been determined in a group of healthy adults. (3) The distribution of titers in the acute phase sera and the increases in antibody for various strains in patients with clinical influenza have been studied. (4) The increase in antibody for various strains following vaccination with commercial vaccines has been measured.

MATERIALS AND METHODS

Virus Strains—The Influenza A strains used were PR8, Olson (Calif., 1943), Skopp (Calif., 1947), and Spirup (Calif., 1948). The Skopp strain was adapted to the amniotic sac of chick embryos following two intra-nasal passages in ferrets. The Spirup strain was isolated directly in the amniotic sac of

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‡ This laboratory is supported by the Divisions of Medicine and Pediatrics of the University of California Medical School and by the Department of Public Health of the City and County of San Francisco.

TABLE 1

Cross-Agglutination Inhibition Tests with Strain-Specific Ferret Antisera

Strain	Ferret Serum			
	PR8	*Olson*	*Skopp*	*Spirup*
PR8 (Puerto Rico, 1934)	512 *	128	8	16
Olson (Calif., 1943)	128	512	128	128
Skopp (Calif., 1947)	8	16	256	256
FM1 (N. J., 1947)	32	32	256	512
Spirup (Calif., 1948)	16	16	256	256

* Numbers indicate reciprocal of serum dilution which completely inhibited agglutination of chicken erythrocytes by test strain.

chick embryos. Both were subsequently passed via the allantoic cavity and produced fluids of high agglutinating titer.

Agglutination Inhibition and Complement-Fixation Tests—These were carried out according to methods employed in this laboratory for some time and are described in full elsewhere.[4, 5]

Ferret Antisera—Animals were inoculated by the intranasal route with 2.0 ml. of either throat washing or allantoic fluid. Immune sera were obtained by bleeding the animals once or more between the 12th and 21st day after this single inoculation.

Human sera—Pre- and post-vaccination sera were obtained from various student groups at the University of California Medical Center and from employees of the Oakland City Health Department.* The majority of sera from patients with influenza were collected in the San Francisco Bay area. Others were submitted from various parts of the state to the Viral and Rickettsial Disease Laboratory for diagnosis.

RESULTS

Tests with Strain-Specific Ferret Antisera—The relationships of the new strains to older Type A strains were investigated in a series of cross-agglutination inhibition tests. Results are summarized in Table 1. It may be noted that: (1) the various 1947 and 1948 strains appeared to be similar in behavior; (2) the antisera for these strains had moderately high titers against a 1943 (Olson) strain; while the 1947–1948 strains were not inhibited to a significant degree by Olson antiserum; (3) that none of the 1947–1948 strains showed a significant cross in either direction with the PR8 strain. Stated in another way, the 1943 strain varied only in moderate degree from the PR8 strain, since there was cross-agglutination inhibition of considerable degree in both directions. Following further variation in 1947 there was a one-way cross with the 1943 strain, but no significant cross in either direction with PR8. Finally, no significant differences were noted between two strains isolated in 1947 (Skopp and FM1) and four strains isolated in 1948 (represented by Spirup).

ANTIBODY TITERS FOR NEW (SKOPP) AND OLD (PR8) STRAINS IN NORMAL INDIVIDUALS

The distribution of antibody titers for the two strains in a group of 159 individuals from the San Francisco Bay area is presented in Table 2. These

TABLE 2

Percentage Distribution of Antibody Titers for PR8 and Skopp in a Group of 159 Adults in the Fall of 1947

	Titer			
	8 or less	*16–32*	*64–128*	*256 or more*
PR8	14%	32%	38%	16%
Skopp	74	18	8	0

* These individuals were inoculated under the direction of P. K. Condit, M.D., to whom the authors are indebted for making this material available.

TABLE 3

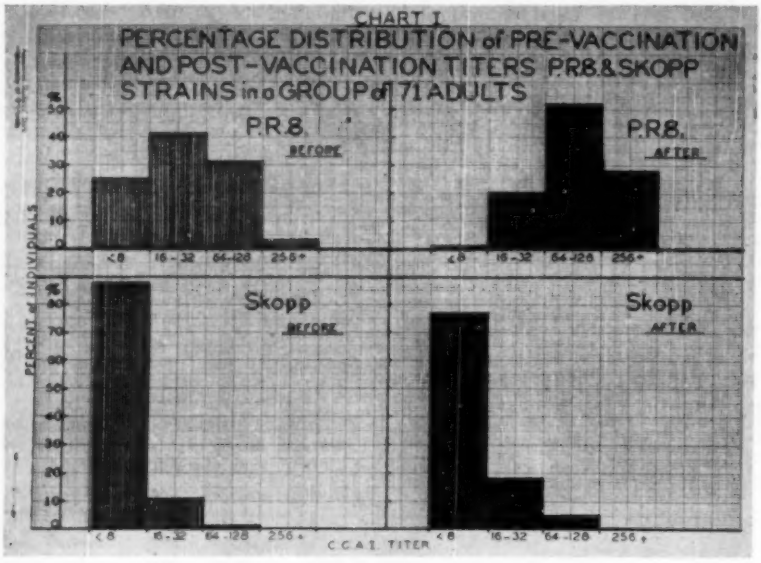
Percentage Distribution of Antibody Titers for PR8 and Skopp in Acute and Convalescent Phase Sera from 69 Patients with Influenza

C.C.A.I. Titer	PR8		Skopp	
	Acute	*Convalescent*	*Acute*	*Convalescent*
8 or less	39%	10%	97%	8%
16–32	48	32	3	62
64–128	13	36	0	29
256 or more	0	22	0	1
Number with Fourfold of greater rise in titer	45		62	

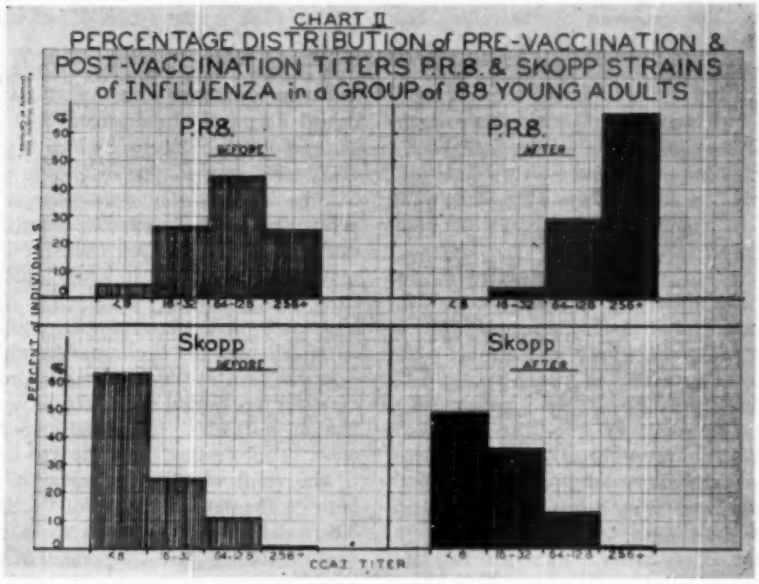
persons were bled during the fall of 1947, i.e., between the first and second outbreaks of influenza. The data show that antibody for the PR8 strain was widely distributed in adults and was frequently found in high titer. On the other hand, three-fourths of the persons tested failed to show levels of antibody for the Skopp strain greater than 8.

Antibody Levels in Patients with Influenza—For the purposes of this discussion the acute phase serum titers for the two strains are of most interest. Results are presented in Table 3. PR8 titers of 16 or more were found in the sera of 42 of the 69 patients. In contrast, only 2 of the 69 patients had titers of 16 when tested with the Skopp strain, the remainder falling in the groups with titers of 8 or less than 8.

The number of patients showing fourfold or greater increases in titer to the two strains is noted in passing, in order to bring out the fact that the experience of the past two years has emphasized the danger of relying on agglutination-inhibition tests using only the PR8 strain for purposes of diagnosis.



Influenza in California during 1947 and 1948



Influenza in California during 1947 and 1948

Failure to establish the diagnosis in 24 of the 69 cases would have resulted in this series. An apparent discrepancy between the number of patients with significant increases in titer and total number of cases of influenza is explained by the fact that in several instances the diagnosis was made by means of complement-fixation tests when agglutination-inhibition tests with both PR8 and Skopp strains had failed to show significant increases in titer.

ANTIBODY INCREASE FOLLOWING VACCINATION

The effect of this antigenic variation on the antibody response following vaccination was investigated in two experimental groups. The first group received an "old" vaccine which was prepared from PR8, Weiss and Lee strains. The data in Chart 1 show that there was a fairly good response to the PR8 strain. This is brought out by the shift of large numbers of persons from the low-titer into the high-titer groups. There was no comparable shift when sera were tested with the Skopp strain, the great majority of individuals remaining in the group with titers of 8 or less than 8.

The second group received a similar vaccine in which the Weiss strain had been replaced by a 1947 strain (FM1). Results are summarized in Chart 2. The response to the PR8 strain was exceptionally good. The response to the Skopp strain, which is antigenically very similar to the FM1 strain (Table 1), contrary to expectation, was disappointing. Half of the group still had titers of 8 or less than 8.

DISCUSSION

These studies emphasize the fact that influenza is not a static disease and that the influenza virus, which has shown marked variability in the past, continues to behave in an unpredictable man-

ner. The problems of controlling this disease have been affected by recent developments in a number of ways.

In the first place it has been generally held that almost all adults have signficant amounts of influenza antibody.[6, 7] This concept is based on work done with "old" strains, such as PR8, and, while it is true when one speaks of influenza in terms of the "old" strains, it is not true with reference to the strains isolated in the last 2 years. Relatively few of the individuals studied in these investigations had antibody for the new strain. It would appear that such a situation favored a rather explosive epidemic of influenza. Paradoxically, the reverse occurred. There were two outbreaks rather than one, and both were marked by a rather low incidence and continued over a long period of time. It is perhaps fortunate that this change in antigenic character was not associated with any obvious increase in virulence.

The uniformly low antibody levels in the acute phase sera of patients with influenza raises again the question of the relationship between antibody titer and susceptibility. Data acquired in 1943–1944 [8, 9, 10] supported the argument that such a relationship existed in the case of antibody to the current epidemic strain. The relationship was far less definite or absent with antibody to the PR8 strain. The data presented in this report show that in 1947–1948 infection often occurred in individuals with PR8 antibody titers even as high as 128. On the other hand, patients with influenza were in every instance found to have Skopp antibody only in very low titer, if at all, during the acute phase of their illness. A strong argument could be made that influenza was likely to occur only in individuals with a low Skopp antibody titer, were it not for the fact that in the group of normal individuals studied the proportion with high Skopp titers was not much greater than in the group of influenza patients.

A second effect has been to make it increasingly difficult to arrive at a serological diagnosis of influenza. The agglutination-inhibition test, which is generally used as a routine diagnostic procedure is relatively strain-specific,[11] and to be maximally effective should be run with strains isolated from the current epidemic. This is often difficult from the technical standpoint. Our laboratory, in the face of this problem, no longer uses the agglutination-inhibition test as a routine diagnostic procedure but has shifted to the complement-fixation test, which is not strain-specific when allantoic fluid antigens are used.

The third effect of importance has been on the potential value of vaccines. There is little doubt that in the past a considerable degree of protection has been provided by combined influenza A and B vaccines in epidemics of both influenza A [12] and B.[13, 14] However, it appears that the old vaccines do not produce satisfactory antibody responses to the new type strains and, in 1947, produced relatively little protection during an epidemic.[1, 2, 3] Even the incorporation of a new strain has not provided a completely satisfactory solution to the problem, if one takes the antibody response as a measure of increase of resistance. It would seem that the present problem could be clarified by further strain studies, particularly with monovalent vaccines, and that vaccines might be improved by the incorporation of other strains. There remains, however, the disconcerting possibility that further strain variation will occur, and that the future strains will be more unlike rather than more like the old strains.

SUMMARY

1. Two state-wide epidemics of influenza A occurred in California during the period 1947–1948.

2. Virus strains isolated during the two

epidemics were similar, but differed markedly from previously isolated influenza A strains.

3. Antibody for the new strains was present in significant amounts in only a small proportion of 159 healthy adults tested in the San Francisco Bay area.

4. The acute phase sera of patients with influenza were found to have antibody for the new strains only in very low titer.

5. Poor antibody responses for the new strains were obtained with an earlier type combined influenza vaccine and with a vaccine containing a 1947 strain.

6. Certain effects of the appearance of new strain types on the development of effective influenza vaccines are discussed.

REFERENCES

1. Sigel, M. M., Shaffer, F. W., Kirby, M. W., Light, A. B., and Henle, W. Influenza A in a Vaccinated Population. *J.A.M.A.*, 136:437–441 (Feb. 14), 1947.

2. Van Ravensway, A. C. Prophylactic Use of Influenza Virus Vaccine. *J.A.M.A.*, 136:435–437 (Feb. 14), 1947.

3. Francis, T., Jr., Salk, J. E., and Quilligan, J. J. Experience with Vaccination against Influenza in the Spring of 1947. *A.J.P.H.*, 37:1013–1016 (Aug.), 1947.

4. Bodily, H. L., and Eaton, M.D. Specificity of the Antibody Response of Human Beings to Strains of Influenza Virus. *J. Immunol.*, 45:193–204 (Nov.), 1942.

5. Meiklejohn, G., and England, B. (to be published).

6. Francis, T., Jr., and Magill, T. P. Incidence of Neutralizing Antibodies for Human Influenza Virus in the Serum of Human Individuals of Different Ages. *J. Exper. Med.*, 63:655–658 (May), 1936.

7. Rickard, E. R., Lennette, E. H., and Horsfall, F. L., Jr. A Comprehensive Study of Influenza in a Rural Community. *Pub. Health Rep.*, 55:2146–2167 (Nov.), 1940.

8. Eaton, M. D., and Meiklejohn, G. Vaccination against Influenza: A Study in California during the Epidemic of 1943–1944. *Am. J. Hyg.*, 42:28–44 (July), 1945.

9. Magill, T. P., and Sugg, J. Y. The Significance of Antigenic Differences among Strains of the "A Group" of Influenza Viruses. *J. Exper. Med.*, 80:1–7 (July), 1944.

10. Salk, J. E., Menke, W. J., Jr., and Francis, T. Jr. A Clinical, Epidemiological, and Immunological Evaluation of Vaccination against Epidemic Influenza. *Am. J. Hyg.*, 42:57–93 (July), 1945.

11. Hirst, G. K. Studies of Antigenic Differences among Strains of Influenza A by Means of Red Cell Agglutination. *J. Exper. Med.*, 78:407–423 (Nov.), 1943.

12. Commission on Influenza. A Clinical Evaluation of Vaccination against Influenza. *J.A.M.A.*, 124: 982–985 (Apr. 1), 1944.

13. Francis, T., Jr., Salk, J. E., and Brace, W. M. Protective Effect of Vaccination against Epidemic Influenza B. *J.A.M.A.*, 131:275–278 (May 25), 1946.

14. Hirst, G. K., Vilches, A., Rogers, O., and Robbins, G. L. Effect of Vaccination on the Incidence of Influenza B. *Am. J. Hyg.*, 45:96–101 (Jan.), 1947.

International Society of Hematology

The first formal Congress of the International Society of Hematology was held in Buffalo, N. Y., in August, with more than 700 persons representing 20 nations attending. This society is an outgrowth of the International Rh and Hematology Conference held in Dallas, Tex., and Mexico City in 1946. The next meeting will be held in 1950 in Cambridge, England. The officers elected for the next two years are as follows:

President: Sir Lionel Whitby, Regius Professor of Physics, Cambridge University, Cambridge, England

Secretary General (Europe): Dr. Marcel Bessis, Laboratoire de Recherche, Paris

Secretary General (Western Hemisphere): Sol Haberman, Ph.D., Baylor University Hospital, Dallas, Tex.

Secretary Treasurer, Dr. Martin Hynes, Department of Medicine, Cambridge University

Effect of Rising Hospital Costs on Group-Payment Plans*

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DISCUSSION of this question must recognize at the outset the basic functions of a group-payment plan for the hospital service. They are two: the *collection* of "payments" of money from large numbers of subscribers over a stated period of time; the *disbursement* of "payments" of money to hospitals which provide specific services to the subscribers during that period of time. The incoming group-payment must, in the long run, equal the outgoing payments to hospitals, with proper allowance for administrative expenses.

The main effect of rising hospital costs upon group-payment plans has been to intensify the problem of *"how to pay hospitals adequately and equitably"* for services provided to subscribers as contract-benefits. Sheer growth of membership has made this an important problem. The changing price level has brought it sharply to the attention of Blue Cross, the hospitals, and the people. No single formula is equally acceptable to all hospitals, whether the basis of payment be cost, established charges, average collections from non-contract patients, or a uniform negotiated rate for all hospitals.

The problems of rising costs are basically different for voluntary hospitals from those of proprietary and government hospitals. The proprietary hospitals serve a relatively small number of patients, each of whom is expected to pay the hospital's established charges. The other group serves mainly indigent cases; and patient fees are relatively less important than taxation as a means of financial support.

The commercial insurance companies provide cash allowances rather than service benefits in their policies. Consequently, reimbursement of hospitals for service is not an immediate problem for such organizations. Their contractual arrangement is to provide a certain number of "dollars" on behalf of policy holders. They are not responsible for contracting with hospitals to furnish stated amounts and types of service.

Before proceeding to a discussion of possible solutions, and an appraisal of prospects for their success, I would like to review the present situation of American hospitals, together with certain events and trends which have made voluntary hospital economics what it is today. The analysis and history will deal with services, costs, and financing.

HOSPITAL SERVICES AND COSTS

The replacement value of our 6,300 "registered" hospitals exceeds $6,000,000,000, as compared with scarcely $3,000,000,000 in 7,000 institutions 20 years ago. Some hospitals have disappeared. A few new ones have been organized. Many have been reorganized. The growth in value has resulted

* Presented before the Medical Care Section of the American Public Health Association at the Seventy-sixth Annual Meeting in Boston, Mass., November 9, 1948.

from an expansion of existing hospitals and a substantial rise in the general price level.

The annual national hospital bill is estimated at about $2,200,000,000, which is slightly more than one per cent of the estimated annual national income, and more than twice the costs of service in 1928. Private resources are the main income for hospitals treating acute medical and surgical cases. Government hospitals provide most of the patient-days of care for mental and tuberculosis cases.

The total annual hospital bill has increased through the influence of several factors: the higher general level of prices, the increased number of people hospitalized, and the greater number and variety of services provided. Hospital wages are now approaching the amounts paid in other fields of employment.

Cost per inpatient case has not risen proportionately with cost per day, since the average length of stay has been reduced for most types of illness. The reduction applies particularly to surgical and obstetrical cases, and has been as much as 40 per cent in some institutions.

There has been a recent reduction in the demand for bed care among voluntary hospitals. This may be temporary, but the trend is noticeable in all parts of the country. Several factors have contributed to this condition; namely: the lowered birth rate, the practice of early ambulation, the increased use of diagnostic facilities by ambulant patients, and the lack of "ready cash" for elective surgery and hospitalization.

Many hospitals have diverted their attention from plans for expansion to a struggle for existence. It is not the first cost, but the upkeep, which causes most financial difficulties.

Every dollar invested in hospital facilities requires about 35 cents annually for expenses of operation. The depreciation on a $1,000,000 hospital's plant and building equipment is about $30,000 annually. But operating expenses for salaries and supplies are about $350,000 each year. The total annual costs of maintenance for a hospital are about 12 times the amount necessary as an allowance for replacement. Replacements or modernization of an existing hospital may, of course, effect a net saving to the community by permitting economies in current operation.

CURRENT PROBLEMS OF HOSPITAL FINANCE

The problems of hospital cost have their counterparts in the efforts to stabilize and achieve hospital income. There are three main sources of income available to voluntary hospitals, in differing proportions for each community and institution.

1. *Patient Fees*
   a. Group-payment subscribers
   b. Individual patients responsible for their own bills.
2. *Taxation*—This includes block-grants, as well as payments for services to cases "approved" by local, state, and federal government agencies.
3. *Philanthropy*, in the form of investment income, support by community chests and federations, and individual contributions.

Most voluntary hospitals have relied, to greater or less degree, upon taxation and philanthropy for a part of their current support. Public policy has required the hospitals to render service to patients in accord with their needs, and to look to the community for later reimbursement.

At the present time a great many hospitals report current expenses which exceed current income from all sources. The polite phrase for this result is "unreimbursed community service." The vernacular term is "deficit."

The net deficit of a specific hospital may be caused by one or more of the following: (a) a scale of charges for

service to individual patients which are below the amounts such patients are able and willing to pay; (b) demands by the community for services which involve costs beyond the amounts which the public pays for such services in taxes or philanthropy; (c) contractual arrangements with group-payment organizations for services at rates which are less than cost, or less than such subscribers as a group should reasonably be expected to pay for their care; (d) charity discounts to individual patients beyond the limits of public necessity and convenience, or beyond the amounts for which community reimbursement has been budgeted or guaranteed.

INCOME PROBLEMS

It is not always possible for a hospital to adjust its income to the expenditures incurred on behalf of patients. Charges to individual patients can be increased, and such rates, particularly for board and room service, are now much greater than in former years. Likewise, grants from government agencies can ultimately be increased, but usually with a time lag as far as costs are concerned, and nearly always with a reluctance on the part of the official agencies to meet the full costs of services to cases "approved" by their representatives. Even the enlightened Assembly of the Commonwealth of Pennsylvania, which appropriated $12,260,000 to 180 voluntary hospitals for the 1947–1949 biennium, has established a ceiling of $5.50 per day for reimbursement for the care of medical and surgical cases.

Most rigid of all types of hospital income are the various forms of voluntary philanthropy, namely: investment income, community chests and federations, and individual voluntary contributions. These amounts are not decreasing, but they finance a much smaller amount of hospital service than ever before. In the Philadelphia area, 10 years ago, they represented 30 per cent of the income of voluntary hospitals. Now the percentage is less than 15 per cent. The ratios are, of course, even lower in other parts of the country.

Good hospital care costs money which must be paid by someone. Up to the present time, voluntary hospitals have been able to survive half "pay" and half "free," as far as the patients are concerned. But behind the program of charitable service by the institution there has always been a struggle by the management and trustees to obtain current funds to pay salaries and purchase supplies for the hospital.

INCREASE OF CONTRACT PATIENTS

An outstanding feature of current finance is the reliance upon contractual income for relatively large groups of people and, accordingly, for large amounts of current revenue. The ability-to-pay principle in hospital charges has been gradually replaced by a "benefit" theory, according to which, individuals or groups are expected to pay their own way. This principle is sound, and it is proper that self-supporting people should also place hospital care in their family budgets along with other necessities.

The costs of hospital care have changed faster than the public's sense of responsibility for the financing of hospital service. A fund of $100,000 is now required to endow the annual maintenance cost of one occupied bed in an urban general hospital. Most voluntary hospitals do not have even this amount of endowment capital.

In the face of rising costs and broader utilization of hospital care by the community, fees charged to well-to-do patients cannot finance very much hospital service to other patients. Net revenue from patients is neither reliable nor adequate for financing charitable service in a hospital.

Private philanthropy finds that the same number of dollars will buy less service than formerly. Likewise, all patients find that the costs of food, clothes, and shelter have permitted a surprisingly small residue or savings for unpredictable hospital bills. Even with higher incomes, no individual can tell when he will need hospital care or what his sickness will cost him. And the standards of eligibility for free service, based on inability to pay for necessary care from private resources at the time of sickness, have been raised much above the levels thought socially justifiable a few years ago.

The problems vary in each voluntary hospital, but only in their detailed phases. Operating deficits are a common phenomenon, and they are not all traceable to unjustified expense. They tend to arise rather from a demand by the public for service in amounts and quantities beyond that for which they have been willing to pay.

PAYMENT OF COST ESSENTIAL

In the milieu of hospital financial problems which have just been described, it is important that group-payment plans assist in the solution of some of them rather than add new ones to those which already exist. Blue Cross subscribers, by definition, are self-supporting members of the community. They should pay their own way, and if they are concerned with free hospital service, it should be as contributors to, rather than recipients of, public charity and philanthropy.

A group-payment plan should pay the full costs of the services which are rendered to its subscribers during any period of time. In the long run, these payments should meet the costs of each hospital which contracts to provide service. If the costs of a specific hospital are so high as to outrage the public conscience, it should be reorganized administratively or excluded from full reimbursement in order to protect the interests of subscribers and well managed institutions.

Several factors make the application of the cost principle difficult to apply in practice. Such factors are the rapid or marked changes in the price level, differences in the type and complexity of the service provided by each hospital, changes in percentage of occupancy, and variations in the quality of management. Moreover, hospital costs may rise without regard to the adequacy of the subscription rates of group-payment plans, which rates can be adjusted only infrequently, and with the ultimate consent of the subscribers.

Upward changes in the costs of hospital care to subscribers of group-payment plans may be balanced by increased collections from subscribers, or by reduction of the hospital service furnished as a contract benefit. Many group-payment plans have felt that there is a maximum price which people will pay for hospital protection, beyond which price members of the public will decide to assume their risks individually. Accordingly, there has been a marked tendency to reduce the amount of protection rather than to increase the price.

DOLLAR-BENEFITS IN BLUE CROSS

The most common method of reducing protection has been the introduction of a co-insurance feature into the subscriber-contract, by which "dollar-benefits" are substituted for the assurance of certain forms of service. This feature has been applied particularly to board and room service. Board and room service has accounted for most of the recent increases in hospital costs, and has typically been "priced" relatively lower than the various special services. If dollar-benefits are to be substituted for service-benefits, the most defensible change is in the provision of board and room services which

are to some degree controllable by the patient as to type and duration.

Another widely adopted form of dollar-benefit is that applied to maternity admissions, an experience regarded by some actuaries as not an "insurable risk." Birth rates have always been higher among Blue Cross subscribers. People do not have babies *merely because* they join Blue Cross, but many do join Blue Cross *merely because* they expect to have babies. Strictly speaking, payments for maternity benefits might properly be charged to "public relations" expense, rather than included in the "loss-ratio" of a group payment plan.

The introduction of the co-insurance feature, or dollar-benefit, into group-payment plans has had several administrative advantages. It has permitted some group-payment plans to avoid a series of raises in subscription rates, which might have caused more cancellations than would have resulted from a reduction of benefits.

The dollar-benefit feature requires hospitals to collect additional sums from hospitalized subscribers in order to finance the service to such patients. The plan and the hospital have thus become "co-defendants" to the patients' "complaint" against rising hospital costs.

The dollar-benefit feature does not take the voluntary hospitals "out of the insurance business." They are still liable to provide their communities with certain types and amounts of service. The only question is whether it is better to collect the necessary funds (beyond existing dollar-benefits) directly from subscribers or through negotiation for a new rate of reimbursement from the group-payment plan.

Dollar-benefits are not the answer to the hospital's need for revenue or the public's desire for protection. A sick man needs service, not cash. Within his ability, he will pay the cash to assure the services he believes to be *necessary*.

FUTURE OF GROUP-PAYMENT

Health insurance is here to stay. The 32,000,000 Blue Cross subscribers and 19,000,000 commercial insurance policy holders are an impressive section of our public. These people are protected more or less adequately with various types of contracts. They all know that assurance of health service can be achieved through group action.

The primary concern of the public is how to obtain *necessary health "service."* This statement applies to the entire population, and particularly the participants in a group-payment plan for hospital or medical care. A group-payment plan that is well managed, and reasonably comprehensive and convenient, will grow in membership even though subscription rates are increased from time to time. If subscribers really like a plan (its benefits and management) they will pay whatever is necessary to keep it going. If subscribers do not like a plan, they will let it languish even at "cut prices." The essential problem thus becomes one of negotiation between the group-payment plan and the agencies which provide the service.

I have weighed and analyzed the data and arguments presented for and against the various forms of voluntary and compulsory health insurance. I have considered such problems as freedom of choice, quality of service, moral hazards, maintenance of standards, income limits, and eligibility for coverage. It is my opinion that all such considerations are secondary to the primary problem of how to contract for a certain type and quality of "service," and how to pay adequately and equitably for the contract benefits received.

From the standpoint of the hospitals, the most essential feature of a group-payment plan is assurance of enough money to enable them to produce the services they are expected to provide. Criticisms by hospitals of actual or

potential group-payment plans can nearly always be traced to the assertion or fear that insufficient funds are being, or will be, paid for the types and volume of service they are expected to give.

CONCLUSION

Group-payment plans should expect to pay the full costs of the services provided to their subscribers by hospitals. Expanding membership makes the payment of cost essential, since an increasing portion of hospital revenue is derived from this source. Payment of different amounts based upon different costs for nominally similar service is complicated, but can be achieved.

The general rise in costs creates a problem of obtaining sufficient money from subscribers to meet the costs of the hospital care provided. In my opinion, the payment of costs, even during changes in the price level, would be assisted by the following policies and procedures on the part of group-payment plans and voluntary hospitals.

1. *Provision of Comprehensive Service as the Contract Benefit* — The absence of dollar-benefits would focus the attention of the hospital and patient upon the service to be rendered rather than the fees to be paid for service at time of hospitalization. On the one hand, the subscriber would be more willing to pay an adequate subscription rate. On the other hand, the hospital would have an economic interest in providing only necessary care.

2. *Provision of "Basic" Rather than Semi-Private Board and Room Service* — This would not prevent assignment of patients to better accommodations when necessary to adequate care, or when voluntarily requested by subscribers after admission to the hospital. Much argument over "how much is enough" has arisen from the fact that contract accommodations contained a "luxury" element, and should be priced according to "ability to pay." Only basic service can be widely urged on the principle of public necessity and convenience.

Two types of dollar-benefit may, in the writer's opinion, be included in a non-profit group-payment program without doing violence to the principle of providing necessary service. One is a dollar-benefit for maternity cases; the other is substitution of suitable cash allowances for service benefits when a subscriber voluntarily elects to utilize other than "basic" room accommodations.

3. *Closer Coördination of Hospital and Medical Group-Payment Plans* — Voluntary hospitals and their attending staffs are professional partners, but economic competitors. Private medical or surgical fees to group-payment hospital patients have been the cause of considerable misunderstanding between doctor and patient. On the one hand, the physician may hesitate to give charity service to a Blue Cross subscriber, even though he cannot pay from his private resources. On the other hand, a Blue Cross subscriber may feel that, with hospital coverage only, he has less protection than he would have enjoyed as a "charity case." The future of private medicine and voluntary hospitals is interdependent. The total expense of hospitalized illness must be budgeted as a single item if voluntary prepayment is to be satisfactory to patients, doctors, and hospitals.

4. *Subscription Rates Must Be Payable on Terms That Permit the Widest Possible Participation* — Comprehensive hospital and medical protection requires a contribution by the employer if low-income workers are to enroll in large numbers. The contribution by the employer may be a proportion of the subscription rate, or a supplemental payment above a uniform deduction for each employee.

It is immaterial whether the total subscription is ultimately paid by the

customer, the stockholder, or the wage-earner. The important fact is that payments by the workers be considered reasonable by them. The practice of employer contribution is, of course, generally required by commercial insurance companies offering group life and health benefits. An increasing number consider the contributions as a form of additional wage or prerequisite for all employees.

Hospitals collect money in order to provide service. They do not provide service in order to collect money. But money and service are inseparable. Neither a group-payment plan nor a hospital can long continue to expend more money than it receives, even for a good cause.

The basic problem caused by rising costs is simply how to raise and disburse enough money to meet those costs. Dollar allowances are merely a stopgap. They are basically an admission that the public does not care enough for hospital protection to pay the price, or that they wistfully hope the bill will be paid from some other source. Group-payment is the best way to raise the money. If group-payment plans are to survive under voluntary auspices, they must pay the voluntary hospitals what it costs to service the group-payment subscribers.

Lectures to the Laity—New York Academy of Medicine

The Fourteenth Series of Lectures to the Laity of the New York Academy of Medicine, 2 East 103rd Street, New York City, began November 17 with the Linsly R. Williams Memorial Lecture by Robert P. Patterson, former Secretary of War, on "Some Problems in Law and Medicine." The second number was on the subject "The Endocrines: Masters or Servants?" by Ephraim Shorr, M.D., of the Department of Medicine, Cornell University Medical College, New York. The third address was "Science under Dictatorship," by Leo Alexander, M.D., Director, Neurobiologic Unit Division of Psychiatric Research, Boston State Hospital.

Other lectures will be held on January 13, January 27, and February 10, all at 8:30 P.M. The first of these will be on "Blood and Man," by William C. Boyd, Ph.D., of Department of Biochemistry, Boston University School of Medicine. John Ray Dunning, Ph.D., Professor of Physics, Columbia University, New York, will speak on "The Future of Nuclear Energy," and finally George B. Gardner, M.D., Executive Director of the Judge Baker Guidance Center, Boston, will speak on "The Criminal in Our Midst." Admission is free and the public is invited to attend. The lectures are broadcast by WNYC and WNYC-FM.

The "Yes" and "No" of Nutrition and Natural Resistance to Infectious Disease*

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IT is my estimate that this audience expects, and is entitled to, a straightforward answer to the question, "Can the food we eat affect our resistance to infectious disease?" In our laboratory we have been facing this question for the past eight years. Now, in fifteen minutes, I must give you my reply. It is a challenging assignment, and since, in Boston, we are not far from Walden Pond, it is perhaps fitting that we recall the challenge of Thoreau, "Simplify! Simplify!" Simplify we shall have to, but what answer will we give to the question, "Can the food we eat affect our resistance to infectious disease?" My answer is, "Sometimes yes, sometimes no." In the rest of the time allotted to me I shall have to show you (1) that my answer is "straightforward" and not a kind of scientific pussyfooting, and (2) how I believe our knowledge of this controversial subject can be extended so that the answer can be made to approach the unequivocal.

To begin with, the question, as I have put it, admits initially that there is such a phenomenon as natural resistance to infectious disease, a term we may define as an abbreviated description of the direct observation that a pathogenic microbe, be it bacterium, virus or fungus, does not always produce the signs and symptoms of infectious disease when presented to a prospective host even though that presentation may be the very first for that particular host. Such hosts we designate as "naturally resistant." When next we come to inquire as to the basis for this natural resistance we are first presented with the biological fact that such natural differences in susceptibility to infectious disease are capable of being categorized by the same biological groupings we designate as species. Thus man, as a species, is susceptible to measles, but mice are not, or, as we say, mice are "naturally resistant." Why this is so we have no very good way of knowing, although we suspect that the real reason is connected somehow with the genetic basis for the difference between mice and men. This *interspecific* difference is such a great one, on any plane one may want to consider it, that I think you will not accuse me of being fainthearted if I suggest it is too much to expect that diet can alter these facts. So that in these instances of inter-specific differences in susceptibility to infectious disease we must say, "No" to the question of the influence of diet.

It is sometimes observed, however, that *within* a species, great differences in susceptibility may exist among populations when a microbic species, which experience has shown generally to be pathogenic for the given host species,

* Presented at a Joint Session of the Food and Nutrition and Laboratory Sections of the American Public Health Association at the Seventy-sixth Annual Meeting in Boston, Mass., November 11, 1948.

is presented in the identical way to representative samples of the host. This is, of course, the familiar fact of variation of a biological character, in this instance, susceptibility to a given pathogen. Now, again, variation may be due to either (1) genetic or (2) environmental causes. Diet is an environmental agent and now the trail begins to grow warm. In the case of these *intra-specific* differences in natural resistance does diet exert any influence? The answer— "Sometimes yes, sometimes no!" I answer in this wise, not because I approve of being pusillanimous while on a public platform, but because of the hard facts of the natural world. The fact is that even environmental agents, such as diet, must produce their effects in the physiology of the host and this physiology is operating within a genetic framework. In natural populations of hosts this framework is sometimes plastic to the effect of environment, and thus an environmental agent makes its effect evident, or the genetic framework is rigid and the environmental effect is not possible, the given character being innately determined in its appearance or non-appearance. Our scientific interest is now focused on describing those genetic conditions in which the genetic framework, or genotype, is plastic to the effect of diet. In the instance of mice, and an infectious disease of mice, Salmonellosis, I believe we are now in possession of information, obtained in our own laboratory,[1-3] which will permit us to offer such a description. Without further ado let us examine experimentally the various genetic circumstances in which host and pathogen can meet, and see for ourselves when diet has an effect on natural resistance and when it does not, when we can say "Yes" and when we must say "No."

Before we do this I shall beg your permission to abbreviate my remarks somewhat. From what has preceded I think it is obvious that in any examination of our problem we must take into account the genetic factors, ***both in host and pathogen.*** Thus far we had not mentioned the variation existent among pathogenic species, but there is certainly no novelty in the fact that virulent and avirulent representatives are recognized to exist, and a third possibility is, of course, a pathogen population consisting of a mixture of these two. Among hosts we can recognize three great classes also: (1) Inbred, genetically uniform, resistant stocks, (2) similar susceptible stocks, and (3) outbred, genetically heterogeneous stocks. Now when these three classes of hosts meet with these three classses of a pathogen species, we can examine the effect of diet. That will make nine instances which we will test. But what diets will we test? For reasons which here must be passed over let us test the effect of a diet of natural foodstuffs, whole wheat and milk, and compare that with a synthetic diet containing all of the essentials known for mice. The results are presented in Figure 1.

In eight out of the nine instances set forth there was no dietary effect observable in terms of differences in survivorship following infection. But in one instance there was such an effect. And so, when the question was put in nine different circumstances, eight times the answer was "No," and only once was it "Yes." On the face of it this is a poor showing for those who would claim that nutrition *does* influence natural resistance, but let us examine more closely the circumstances of the single "Yes." In this instance hosts which were genetically heterogeneous were infected by mixed populations of virulent and avirulent pathogenic bacteria. But in the natural world this is what probably is going on all the time. Certainly man is genetically heterogeneous and it is very probable that the pathogen populations he encounters are not pure

The Effect of a Natural (N) and a Synthetic (S) Diet on Survivorship following Infection in Nine Different Genetic Circumstances

		Host-Genotype		
		Inbred, selected, resistant	Random-bred, (outbred) non-selected	Inbred, selected, susceptible
Pathogen-Genotype	Uniformly virulent	N-Died S-Died	N-Died S-Died	N-Died S-Died
	Mixed virulent and avirulent	N-Survived S-Survived	N-Survived ↑ Dietary effect ↓ S - Died	N-Died S-Died
	Uniformly avirulent	N-Survived S-Survived	N-Survived S-Survived	N-Survived S-Survived

FIGURE 1

From H. A. Schneider, Transactions of the New York Academy of Medicine, 1948 Eastern States Health Education Conference. (By permission.)

cultures, but mixed. So the single "Yes" is more important than it appeared at first sight, for it represents the vast bulk of the experience of the natural world. It is the abstractions of the laboratory which have provided us with several replies of "No." These negative answers are not false or wrong, rather we must say that in the natural world their probability of occurrence is a small one. We might say, then, that in the natural world the answer to our question, "Can diet influence natural resistance?" is a little "No" and a bigger "Yes."

Returning to our own specific disease model, in terms of mice and mouse typhoid, we can now say that the dietary agent responsible for increased survivorship is in the whole wheat, and, by experiment, has been localized in the germ. It is probably a new nutritional entity since it is not replaceable in its effects by any of the nutrients thus far

recognized, including all of the known vitamins. We are now engaged in the task of isolating and identifying this compound. When we have it in our hands we will, I am sure, by increasing the level at which it exists in the dietary environment, diminish the "No" and increase the "Yes."

REFERENCES

1. Schneider, Howard A., and Webster, Leslie T. Nutrition of the Host and Natural Resistance to Infection. I. The Effect of Diet on the Response of Several Genotypes of *Mus musculus* to *Salmonella enteritidis* Infection. *J. Exper. Med.*, 81:339 (Apr.), 1945.

2. Schneider, Howard A. Nutrition of the Host and Natural Resistance to Infection. II. The Dietary Effect as Conditioned by the Heterogeneity of the Test Pathogen Population. *J. Exper. Med.*, 84:305 (Oct.), 1946.

3. Schneider, Howard A. Nutrition of the Host and Natural Resistance to Infection. III. The Conditions Necessary for the Maximal Effect of Diet. *J. Exper. Med.*, 87:103 (Feb.), 1948.

"Protect the Family . . . Stamp Out VD" 1949 Social Hygiene Day Theme

Aimed at eradicating the nation's No. 1 communicable disease problem, the venereal diseases, the nation-wide observance of National Social Hygiene Day has been scheduled for February 2, 1949, according to Dr. Walter Clarke, Executive Director of the American Social Hygiene Association.

The theme of this year's observance is "Protect the Family . . . Stamp Out VD." "More than ever today it is recognized that the fight against venereal disease is the fight for the strongest family life for our country," Dr. Clarke pointed out. "Syphilis and gonorrhea are two of the greatest enemies of marriage and parenthood," he said. "The fight against VD is a fight for the children of our country—children who have a right to grow up as whole human beings—whole in body, mind, and spirit with insight into the true place of sex in life.

"This year the American Social Hygiene Association is faced with a new challenge with the national emphasis on defense activities. The nation's Armed Forces recognize the protection of American family life as the chief reason and best way of preventing venereal diseases among military personnel."

The American Social Hygiene Association has been requested by the U. S. Interdepartmental Committee on Venereal Disease to aid in the problem of venereal disease control as well as in the encouragement of the establishment of wholesome recreational and other activities in all local communities.

Social Hygiene Day will be observed in many cities at meetings, rallies, institutes, and forums on February 2, and throughout the rest of the month.

Program and publicity aid materials may be secured by writing to the American Social Hygiene Association, 1790 Broadway, New York 19, N. Y.

A Community Program for the Control of Rheumatic Fever

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THE purpose of this paper is threefold: (1) to point out the importance of the problem, (2) to suggest a plan for community action in the control of rheumatic fever, (3) to urge physicians to initiate such community organization.

As a result of the work of Paul,[1] Swift,[2] Hedley,[3] Jones,[4] Wilson,[5] Sampson,[6] and many others, physicians are gradually becoming aware of the disease and its public health aspects. The public health aspects have been reviewed recently by Griffith,[7] pointing out that rheumatic fever, together with tuberculosis and syphilis, constitute the remaining big three infectious problems in American communities.

IMPORTANCE OF THE PROBLEM

Rheumatic fever, an acute, systemic, post-streptococcal, hypersensitivity syndrome with protean manifestations, is important, not only because of the morbidity and mortality, but because of its cardiac pathology, necessitating a public health program to include case finding, proper diagnosis, and provision for adequate long-time care.

Mortality statistics, in spite of under reporting, show a combined rheumatic fever rate for all ages of 20 per 100,000 in 1942.[8] From age 5 to 19, it is, among diseases, the leading cause of death.[9] Mortality statistics do not tell the whole story, for it is this infection which incapacitates and limits the earning power of many thousands during the prime of life. Furthermore, such handicapped individuals become nervously ill, frustrated and unhappy in their limited way of life. The size of such a group of individuals is shown by the medical examination of draftees, approximately 40 per 1,000.[10] Of the first 1,000 selectees rejected because of cardiovascular problems which the author assisted in reëvaluating in the City of Philadelphia, 69 per cent had either rheumatic fever or rheumatic heart disease.[11] In various cities throughout the United States, the incidence of rheumatic heart disease is shown by the following studies: in Cincinnati, 2 per 1,000[12]; in Philadelphia, 3.9 per 1,000[13]; in New York City, 8.8 per 1,000[14]; and in San Francisco, 4.2 per 1,000. In 1945 Sampson[15] reported studies of three different communities in California revealing an average incidence of 1.6 per cent.

The author, utilizing methods to be described later in this paper, found an incidence of 2.7 per cent in the school districts of Ontario and Upland, Calif., out of 2,769 children examined; while in Pasadena, a similar study of 2,159 children showed an incidence of 2.6 per cent.

The Los Angeles Heart Association sent out a questionnaire to 7,200 physicians on August 20, 1948, requesting information regarding the number of rheumatic fever cases, rheumatic fever suspects, rheumatic heart cases, and the

TABLE 1

Questionnaire on Rheumatic Fever, Rheumatic Heart Disease and Congenital Heart Disease

	Number of Patients			Number Needing Institutional Care		
	Total	20 and Under	21–35	Total	20 and Under	21–35
Rheumatic Fever	469	337	132	109	71	38
Suspected Rheumatic Fever	394	304	90	30	20	10
Rheumatic Heart Disease	1,726	607	1,119	238	73	165
Congenital Heart Disease	554	369	185	30	16	14
Total	3,143	1,617	1,526	407	180	227

number of congenital heart cases under private care; 23.9 per cent of the physicians returned the questionnaire in time for tabulation by September 7, 1948.

This response, although incomplete, shows the number of rheumatic fever patients in this county, and that 407 of them should be treated in an institution giving complete care.

In the past 9 months, on the Los Angeles County Hospital In-Patient Services alone, 234 patients with rheumatic fever under the age of 21 have been discharged, most of whom should be in a good convalescent hospital. Clearly, these facts show the need for organized efforts to control the disease.

ETIOLOGICAL FACTORS

Since World War I it has been generally known that rheumatic fever tends to occur in epidemics and to follow epidemics of streptococcal sore throat and scarlet fever. The best and most recent examples of this truth are the statistics obtained on my recent visit to the Far East Command. Statistics for 1947 were obtained from Colonel A. H. Thompson from the 8th Army Area in Japan, and from Colonel C. P. Ward from the 24th Corps Area in Korea.

The cases of rheumatic fever followed the streptococcal infections by 2 to 6 weeks. The very high percentage of rheumatic fever is unexplained. The usual percentage of post-streptococcal nonsuppurative complications in the United States is about 5 per cent.

Socio-economic factors appear to influence the occurrence rate of rheumatic fever as pointed out by Paul.[3] The disease also tends to be concentrated in families.[15] This thought must be correlated with the studies of the author showing that the home is a point of contact, and that a boy from a rheumatic home is not more likely to develop rheumatic fever after he leaves home than a boy from a non-rheumatic home.[16] All these facts, including psychological ones, should be utilized in an organized effort to control rheumatic fever.

TABLE 2

Relationship of Known Streptococcal Sore Throats and Scarlet Fever to Rheumatic Fever in Far East Command for 1947

	Total Number Cases of		Total Number Cases of	
	Strept. Sore Throat	Scarlet Fever	Rheumatic Fever	Per cent
Korea	372	182	209	36.0
Japan	834	2,036	835	29.0

COÖPERATION A NECESSITY

To make proper use of the knowledge we already possess, requires the mobilization and organization of all community resources. Rheumatic fever cannot be controlled by the physician alone. The physician finds the socio-economic, the psychological, and the epidemiological aspects of the disease beyond his ability, and requires community coöperation. To this end, education of parents, teachers, social workers, school nurses, and, above all else, physicians, is necessary to detect the early manifestations of the disease, to practise the best child health care, to seek diagnostic serv-

ices, and to provide convalescent care with educational and occupational services.

ORGANIZED ACTION

There are promising signs of local action. In many cities such as Los Angeles, educational programs are given at regular intervals. Many states now require that the disease be reported, and in some large cities cardiac diagnostic services have been made available.

From the federal level, the Children's Bureau has been assisting state agencies since 1939. In 1944, the American Heart Association called a conference of medical, governmental, and social organizations, and adopted resolutions to (1) seek aid from public and private funds in order to increase the basic knowledge of the disease for professional education and for increasing public awareness, (2) to form a Council on Rheumatic Fever. This council was formed, and after consideration, felt that the greatest present need is to assist physicians and others to develop an overall community program for the control of rheumatic fever.

WHAT SHOULD BE DONE?

The pattern for rheumatic fever control should follow that utilized to control tuberculosis. The Framingham Tuberculosis Demonstration [17] set the pattern for an adequate community control. The following objectives were set up.

1. The magnitude of the problem must be known.
2. Expert consultation service must be provided for the practising physician.
3. Standards for diagnosis must be determined.
4. Economic and environmental studies should be evaluated.
5. Health education must be directed toward personal hygienic living and toward building of body resistance.
6. Provision for adequate treatment outside of the home for all economic levels should be made.

A LOCAL PROGRAM

Rutstein,[18] in a recent issue of the *American Journal of Public Health*, reported on and summarized the findings of a symposium on a community program for rheumatic fever. Many local control programs have been initiated. The most successful is the one at Stamford, Conn.

Summarizing the reported experiences of others and the writer's own experience in rheumatic fever, the following objectives were set up prior to instituting a rheumatic fever control program in a local California community.

1. Enlist the active coöperation of organized medicine.
2. Enlist the interest and aid of the local school officials, the public health officers, public health nurses, school physicians, school nurses, the local hospital administration, and civic groups as the P.T.A. and Junior League.
3. Establish a method for case finding.
4. Diagnostic Rheumatic Fever Clinic must be available without charge to all.
5. Follow up service organized.
6. Social service objectives determined.
7. Institutional care provided.
8. Educational and occupational guidance facilities must be made available.

The locality selected for this community rheumatic fever control program comprised the Ontario and Upland municipalities located in the Western end of San Bernardino County, California. This community is situated 50 miles inland from the sea coast, and is in the heart of the citrus and grape industries. The community became extremely rheumatic fever conscious because of the constant contact with patients from the Rheumatic Fever Unit of the Corona Naval Hospital. During the war, hundreds of patients from this unit were entertained and aided in many ways by the citizens of the area.

COÖPERATION OBTAINED

The administrator of the local hospital, Dr. A. A. Aita, and the president of the hospital clinical staff held dinner meetings at which the hospital medical

staff discussed the problem of rheumatic fever. The hospital and the staff agreed to give every aid in setting up the program. In this locality, all reputable physicians are members of the hospital staff.

CASE FINDING

The local school authorities, the school physicians, the school nurses, public health officials, and public health nurses gave full coöperation in case finding, examining every child in the schools, at ages 6 to 12 inclusive.

DIAGNOSTIC CLINIC ORGANIZED

The hospital administration provided space, consisting of a large waiting room, three examining tables, desks, chairs, gowns, and linen. A hospital technician, Flora Marvin, made appointments and managed the physical details of the clinic. The school nurses and public health nurses under the direction of Bertha Schwarzwelder, R.N., attended the clinic, one nurse assisting each examining physician. A careful history, complete physical examination, full blood count, urinalysis and sedimentation rate, electrocardiogram and fluoroscopic study were done on the first visit. For each patient admitted to the clinic, a record folder containing the above information was provided. The chief of the clinic consulted with each of the attending clinicians, namely, Drs. E. O. Carlson, G. S. Coltain, and R. N. Williams, and after careful discussion by the group, arrived at a diagnosis based upon the criteria set up by Jones[19] and Griffith.[20] Immediately upon the conclusion of the clinic, a letter was dictated to the hospital secretary, Audrey Richings, and typed in triplicate, the original copy going to the family physician or the public health physician, or the school physician; the second copy was filed in the record folder; and the third copy filed with the hospital's permanent records. The letter contained complete history, physical examination, record of laboratory results, diagnosis, recommendations for treatment, and an appointment for follow-up in 3 to 6 months' time if the patient was under the care of a private physician, or a return appointment in 2 to 4 weeks if the parents could not afford a private physician.

ADMITTANCE

All patients were admitted and studied without social service investigation of ability to pay. The patients from private physicians paid for laboratory work only if the physician so advised.

The attending physicians, the nurses, technicians, and secretary made no charge for their services.

The cost of the entire clinic per patient was $16 per case studied. The expense was met by the Community Hospital through its administrator and the Board of Trustees. The local Junior League provided funds for the second year of the clinic.

FOLLOW UP

The physicians returned their private patients for follow up consultations regularly.

The public health nurses visited the homes of both private cases and those with substandard incomes. Parents were interviewed by the physicians in the clinic and instruction was given. The public health nurses helped the parents to carry out such directions where no private physician was in attendance.

Careful attention was given to the early detection of upper respiratory infections and for possible recrudescence of rheumatic activity by the physicians and visiting nurses.

At the present time, a survey for possible streptococcal carriers is in operation. A culture is taken from all throats in the home where the patient resides.

Convalescent care in a rheumatic fever hospital was possible in only one

case. It is believed that many of the patients, from the better as well as the poorer homes, would do better in a convalescent heart hospital. This method of treatment prevents to a large degree epidemic streptococcal throat infections and provides a routine of rest and adequate food. The psychological needs of the child are met better in the convalescent home. Educational facilities are provided by well integrated teachers, and occupational guidance as well as supervised play, aid greatly in the maintenance of a rounded development for the rheumatic child.

As a result of the community program at Ontario and Upland, 3,840 children were observed, with an incidence of the rheumatic state during 1946 of 2.74 per cent, and in 1947 of 2.2 per cent.

REFERENCES

1. Paul, John R. The Epidemiology of Rheumatic Fever and Some of Its Public Health Aspects, printed by Metropolitan Life Insurance Company for the American Heart Association, 2nd ed., 1942.

2. Swift, Homer F. *Bull. New York Acad. Med.*, second series, 16:501 (Aug.), 1940; *J.A.M.A.*, 115: 1509 (Nov. 2), 1940.

3. Hedley, O. F. *Proc. A. Life Insur. M. Dir. Am.*, 25:163, 1930.

4. Jones, T. Duckett. *Tr. Assoc. Am. Physicians*, LVII:267, 1942.

5. Wilson, May G., Schweitzer, Morton D., and Lubschez, Rose. *J. Pediat.*, 22:581 (May), 1943.

6. Sampson, J. J., Christie, A., and Geiger, J. C. *Am. Heart J.*, 16:661, 1938.

7. Griffith, George C. *A.J.P.H.*, 38, 5:682 (May), 1948.

8. Department of Commerce, Bureau of the Census, Vital Statistics—*Special Reports*. Deaths and Death Rate for Selected Causes by Age, Race, and Sex: The United States, 1942. 19:365 (July 29), 1944.

9. Armstrong, D. B., and Wheatley, G. M. *New York State J. Med.*, 45:169 (Jan. 15), 1945.

10. *Medical Bulletin, No. 5*. Prepared by the Medical Division, Samuel J. Kopetzky, Col., MC, June 30, 1941.

11. Levy, R. L., Stroud, W. D., and White, P. D. *J.A.M.A.*, 123 (Dec. 11), 1943.

12. Rauh, L. W. *Am. Heart J.*, 18:705 (Dec.), 1939.

13. Cahan, J. M. *Ann. Int. Med.*, 10:1752, 1937.

14. Meyers, J. A. *A.J.P.H.*, 21:615, 1931.

15. Wilson, May G., Schweitzer, Morton D., and Lubschez, Rose. *J. Pediat.*, 22:581 (May), 1943.

16. Griffith, George C., et al. *Am. Heart J.*, 35:421–438 (Mar.), 1948.

17. *Framingham Monograph No. 10*. IV. Final Summary Report, 1917–1923, incl. Framingham Community Health and Tuberculosis Demonstration of the National Tuberculosis Association, July, 1924.

18. Rutstein, D. R. *A.J.P.H.*, 38, 8:1082 (Aug.), 1948.

19. Jones, T. Duckett. *J.A.M.A.*, Oct., 1944, p. 126.

20. Griffith, George C. *J.A.M.A.*, Apr., 1947, p. 133.

Tuberculosis Nursing Course

The Department of Public Health Nursing, College of Medicine, Syracuse University, in coöperation with the New York City Department of Hospitals and the New York State Department of Health, will offer a course in tuberculosis nursing during the spring semester, 1949. The course is being offered for public health nursing supervisors and senior nurses, and those preparing for consultant positions. Field experience in tuberculosis community nursing will be given in Syracuse and clinical experience at Triboro Hospital, New York.

The semester runs from February 4 to May 31, with registration from January 31 to February 3. Apply to Margaret Shetland, Acting Director, Department of Public Health Nursing, Syracuse University, Syracuse, N. Y.

A Program of Inservice Training for the Health Department Staff*

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EXPERIENCE of the California State Department of Public Health has demonstrated that a real contribution to the improvement of a departmental program and its efficiency can be made by planned, continuous inservice training which meets the needs of the staff.

The California inservice program was started in January, 1947, on the recommendation of three staff committees which, over a period of more than a year, studied the problem and experimented with various phases of inservice training. Among the staff needs which were recognized by the committees were the following:

1. The orientation of new employees
2. Better understanding by all employees of departmental problems, planning, policies, and programs
3. Opportunity for a larger number of the staff to participate in planning, in solving problems, and in formulating policies
4. Help to all the members of the staff in acquiring a respect for the value of their own and other people's work and an understanding of the work problems of other people
5. Help to all the staff in acquiring a feeling of belongingness
6. Opportunity for all the staff to grow on the job
7. Involvement of the staff in the development of the inservice program

Certain difficulties stood in the way of the development of a complete inservice program. California is the second largest state in the Union. Although headquarters offices are in the San Francisco Bay area, a staff of approximately 800 persons is housed in 12 different buildings in four cities, or is working out of these offices in the field. The departmental program is broad and is expanding. Job classifications utilized by the department in the employment of staff range from unskilled workers to highly trained scientists and administrators. A fast tempo of work is maintained throughout the department, a factor which, at the start of the program, caused some administrators to question whether time could be spared for inservice training.

An analysis of the difficulties which have been mentioned revealed that it was impractical to start with a program that would meet completely all the needs which had been recognized. A pragmatic view was adopted and it was decided to start somewhere short of the ideal with a program which would meet some of the more urgent needs and which was sufficiently flexible to provide for growth and for change as other needs were recognized.

THE PRESENT PROGRAM

Although the Bureau of Health Education has administrative responsibility for inservice training, the program itself is conducted by the entire department, with broad staff participation in all of its phases. The program which has

* Presented before the Public Health Education Section of the American Public Health Association at the Seventy-sixth Annual Meeting in Boston, Mass., November 9, 1948.

operated continuously with minor changes for nearly two years may be divided into four parts: orientation of new employees; general staff meetings; a house organ; and special educational opportunities for the staff.

1. *Orientation of New Employees*—Within a month after employment, new employees in key positions such as those in professional, administrative, technical, and senior clerical classifications spend 4 days in one hour visits to the San Francisco Bay area offices of each bureau and of the two Divisions, Laboratories and Local Health Services, which conduct operating programs. (The other three Divisions, Administration, Environmental Sanitation, and Preventive Medical Services, do not conduct operating programs but coördinate the work of bureaus.) Although the department maintains offices in four cities, headquarters of all divisions and bureaus are in the Bay area in either San Francisco or Berkeley.

The group of new employees is kept under 10, so that there may be opportunity for questions and informal discussion. Although a one hour visit does not permit the acquisition of very extensive knowledge, it is long enough for new staff members to get some understanding of program and problems, to become acquainted with some of the key members of the department staff, to see the physical plant and to observe some of the programs in action, as in the laboratories and in the offices where machine tabulation of data is done.

The orientation program for employees in key positions is regularly scheduled for the first 4 days of the last week of each month. Division and bureau chiefs have been requested by the director not to delegate responsibility for meeting with the group of new employees.

After the group of new employees in key positions has completed 4 days in this special orientation program, they meet with all other new employees for a half-day session on Friday morning with the director and the five division chiefs. This larger group usually numbers about 20 and includes all new employees. Discussion at this meeting centers around the overall program of the department and so serves the dual purpose of tying together the information which has been acquired by the special group in the 4 day program and of giving some orientation to new staff members who attend only this one session.

When the orientation program had been in operation for a year, we had on hand a backlog of more than 70 requests for inclusion in the program from employees who had been with the department for some time—in one case for 30 years. Arrangements were made to schedule two groups, both of which included new and old employees, for each month during the first 6 months of 1948. Division and Bureau chiefs willingly accepted the responsibility of devoting 2 hours instead of 1 each month to meeting with new employees.

Staff members of the State Department of Finance and the State Personnel Board have taken the orientation course. At the present time plans are under way to invite key staff of local health departments to participate in the program. The possibility of utilizing the program to orient the staffs of other state agencies and of local health departments was not originally contemplated. Without a planned, continuous inservice program it would not be possible to give this important educational service to other agencies.

2. *General Staff Meetings*—Although meetings of the administrative staff have been the custom in the department for some years, regularly scheduled, planned meetings for all the staff were not held before the inauguration of the present inservice program. The plan which has been followed since the start of the pro-

gram is to hold a 1½ hour general staff meeting on Friday of the week in each month, which is devoted to inservice training. Tea is served at the close of the meeting.

Programs for the current year are being selected on the basis of desires expressed by staff through a questionnaire which was distributed with pay checks in January; however, there is flexibility to meet situations which could not be anticipated and to give the staff an opportunity to hear visiting celebrities. There is a conscious effort to provide variety in topics and in methods of presentation. For example, these are typical programs: a panel discussion of legislative plans by the director and division chiefs; a presentation of research in encephalitis control by staff members participating in the research; group discussion of departmental policies relating to local health departments led by a representative of the American Public Health Association; the showing of new films and group discussion of them led by staff of the Bureau of Health Education; a presentation of state civil service policies and practices by the staff of the State Personnel Board.

Participants are asked to make clear presentations which can be understood by any intelligent person who is not an expert in the specific field covered but are warned not to "talk down" to the group. Frequently, technical material is presented. Nevertheless, the meetings continue to be attended by about an equal proportion of professional and clerical staff, apparently with equal enjoyment by both groups.

3. *House Organ*—Each member of the staff receives a copy of a house organ entitled "Just Between Us" which is issued in mimeographed form once a month.

Although the Bureau of Health Education has editorial responsibility, much of the material in "Just Between Us" is written and contributed by staff members throughout the department. A typical issue includes a message from the director, an article on personal hygiene, news of activities of the staff such as vacation plans, marriages, and births, a welcome to new staff members, a description of one phase of the departmental program or a personality sketch of a staff member. There is a sprinkling of cartoons, jokes, and rhymes. The style is informal, newsy, and friendly.

4. *Special Educational Opportunities*—Each bureau and division of the department provides, in varying degrees, planned programs of inservice education for its staff. The Personnel Office arranges refresher courses for the clerical staff. In addition, there has been recognized a need to provide opportunities for inservice education which are not limited to staff in any one division, bureau, or job classification. A beginning was made in arranging last spring a special course in California Government which was taught by a member of the faculty of the State University. Persons who enrolled were from professional, technical, and clerical fields, and ranged in job classification from bureau chief to senior stenographer. A departmental committee is now assisting the Bureau of Health Education in ascertaining staff needs for similar programs and in developing a plan to meet these needs.

EVALUATION

No formal attempt has been made to evaluate the inservice program. Its limitations are recognized and some of them have been mentioned.

There has been tangible evidence that the program has staff approval. The requests by staff members who had been with the department for a period of years to participate in the orientation program indicate that this service is helpful. These requests were often accompanied by a statement such as,

"The newest employee in our office knows more about the department than I." Comments of new employees have been collected. The one which pleased us most was made by a stenographer who, in describing the orientation program to a friend, said, "It's a wonderful place to work. You know, they really care about you." A good attendance has been maintained at the general staff meetings which have shown improvement both in methods of presentation and in audience participation. From comments of staff and from staff contributions of editorial material, it is known that "Just Between Us" is widely read and appreciated. There was a capacity enrollment in the one special course that was offered and we have had requests for additional courses.

Administrators report better staff morale and less staff turnover. Concern with these two problems was an important motivation in starting the inservice program. It is believed that the inservice program, by meeting, at least partially, the staff needs which have been mentioned, has contributed to this improvement.

During the period of our experience with inservice training there has been observable improvement in departmental administrative policies and operation. It is not possible to measure the contribution of the inservice program, and certainly other factors are involved. Experience in planning and operation of the inservice program has helped administrators recognize staff needs and find ways of meeting them. In a number of divisions and bureaus there has been improvement of personnel practices including planned orientation of new employees within the division or bureau, regularly scheduled staff meetings, committee work, and social activities. The department has established a canteen for employees in San Francisco, a simple thing in itself but an action that has done much to promote staff friendships and give employees a feeling of belongingness. There is a movement coming from both administrators and rank and file employees to form an employees' association. Most important has been the provision by administrators of increased opportunity for the staff to participate in planning, in solving problems, and in formulating policies.

The changes in administrative policies which have been mentioned would perhaps have evolved in any case; it is believed, however, that the experience of administrators in thinking through staff needs and in planning and participating in the inservice program has hastened the process of evolution.

Popular Magazine Discovers Local Health Units

Collier's Weekly for January 22 will have an article discussing the need for at least basic minimum local health services to cover the entire nation. Its dramatic title is "The Shame of Our Local Health Departments."

Public Health Degrees and Certificates Granted in the United States and Canada during the Academic Year, 1947-1948

The Committee on Professional Education for the 15th consecutive year presents its annual report of Public Health Degrees and Certificates Granted. Because of the special concern which the Engineering Project has had in recruitment and training of engineers for public health services, the material on students and degrees in sanitary or public health engineering is more complete for the academic year 1947–1948, than it has been in earlier years. This should be borne in mind in studying the figures.

In addition, the current report includes the findings of a special study made of undergraduate students and degrees in sanitary engineering.

As has been the practice for the past two years, summary tables only are included in this report. More detailed tabulations such as have been prepared in previous years are available in mimeograph form on request from the office of the Association. In the 5 year tables, certain minor corrections have been made in figures for 1946–1947, following further clarification by administrative officers of some of the schools.

The present report, as formerly, is based on questionnaires submitted by the administrative officers of the schools training graduate students. Their replies have been subjected to statistical review only. The tabulations are shown for graduate students in public health, public health or sanitary engineering, and public health nursing. The first two groups include only Master's degrees, or their equivalent, or higher academic degrees; the last mentioned includes students receiving Baccalaureate degrees or certificates, or equivalent, in public health nursing. The National Organization for Public Health Nursing has prepared the material on public health nursing students and degrees and given permission to include the data as a part of this report.

The report is based on replies received from three groups of schools; those 16 giving public health degrees, including the 10 schools of public health accredited through the A.P.H.A. accreditation program; from 41 universities offering graduate degrees in public health engineering or sanitary engineering; and, finally, from schools with 37 approved programs of study in public health nursing or approved basic curricula. A number of schools, it will be understood, are in more than one category, that is, some of the universities gave public health degrees, public health engineering degrees, and nursing degrees or certificates.

ENROLLMENT TRENDS

The figures for the current year indicate a slowing up of the increases that have appeared in previous post-war years. The total number enrolled in public health courses increased slightly. Engineering student enrollments as reported also show an increase of more than 10 per cent, but this increase is due almost entirely to the larger number of schools reporting.

As to degrees granted, there has been a slight drop in public health degrees and an increase of about one-fifth in public health engineering degrees after

making allowance for additional schools reporting. Degrees and certificates for graduate nurses were reported from all approved programs of study for the first time in recent years. After allowing for schools previously unreported there has been an increase of about one-sixth in the number of graduate degrees and certificates granted through approved programs over the previous year.

The proportion of physicians among those enrolled in public health courses has been about 40 per cent of the total enrollment during the current year and the two years previous, in absolute numbers 244, 298, and 302 in these years. For the eight years during which information on professional background of students in graduate public health courses has been secured, nearly 1,900 physicians have been enrolled representing 42 per cent of total enrollment. In the first two of those years physicians made up more than half of the graduate students; in the academic year 1943–1944 they were only one-third. Health educators represent the next largest group, less than 20 per cent in 1947–1948, a substantial reduction from the 29 per cent of the total two years ago. Laboratory workers have increased from 33 in 1944–1945 to 89 in 1947–1948, from 7 to 12 per cent of the total enrollment.

With the expanding concept of public health, a new group has come into public health schools in the last two years in appreciable numbers. The number of hospital administrators, enrolled almost exclusively in the special courses given at Columbia University and the University of Minnesota, numbered 49 last year and 94 in the current academic year, in which they constitute nearly 13 per cent of the total enrollment in graduate public health courses.

NUMBER OF DEGREES GRANTED

With the exception of Toronto University and the University of Puerto Rico, where different traditions of nomenclature prevail, the number of separate degrees offered for public health students has now been reduced to 8, including Master of Hospital Administration. The most common degrees offered are Master of Public Health by 10 schools, and Doctor of Public Health by 7.

There has been less consolidation of degrees in public health engineering or sanitary engineering. Originally the 41 schools reported a total of 25 different degrees. In analyzing the material it has been assumed, however, that the distinction between Master of Science, Sanitary Engineering; and Master of Science in Sanitary Engineering is a distinction without a difference. The same assumption has been made for Master of Science, Civil Engineering, and Master of Science in Civil Engineering; and for Master of Science, Civil Engineering (Sanitary Option), and Master of Science, Civil Engineering, (Sanitary Engineering Option). Other probably reasonable consolidations have

TABLE 1—ENROLLMENT IN GRADUATE PUBLIC HEALTH COURSES AND STUDENTS RECEIVING GRADUATE DEGREES OR CERTIFICATES, FIVE YEAR SUMMARY, 1944–1948

Academic Year	*Enrollment*			*Students Receiving Degrees and Certificates*			
	Total	*Public Health*	*Public Health Engineering*	*Total*	*Public Health*	*Public Health Engineering*	*Public Health Nursing*
Total	3,786	2,933	853	8,277	1,894	448	5,935
1943–1944	460	396	64	1,119	207	35	877
1944–1945	540	462	78	1,204	270	38	896
1945–1946	730	607	123	1,468	353	63	1,052
1946–1947	999	724	275	2,078	536	133	1,409
1947–1948	1,057	744	313	2,408	528	179	1,701

TABLE 2—NUMBER OF GRADUATE PUBLIC HEALTH DEGREES OR CERTIFICATES GRANTED, FIVE YEAR SUMMARY, 1944–1948

Degree or Certificate	*Total*	*1943–44*	*1944–45*	*1945–46*	*1946–47*	*1947–48*
Total	8,277	1,119	1,204	1,468	2,078	2,408
Doctor of Public Health	38	10	8	3	6	11
Doctor of Science	18	3	...	3	4	8
Doctor of Philosophy	18	3	4	4	3	4
Master of Public Health	1,218	101	140	216	361	400
Master of Science	301	29	17	31	132	92
Master of Science, Public Health	235	45	68	56	48	18
Master of Science, Public Health Engineering	10	4	...	4	2	...
Master of Science, Sanitary Engineering	74	1	...	16	22	35
Master of Science, Civil Engineering	24	...	1	1	10	12
Master of Civil Engineering	25	5	1	1	4	14
Master of Arts in Science	12	...	...	3	...	9
Master of Sanitary Science	56	...	18	18	20	...
Master's Degree (Nurses)	512	43	32	136	175	126
Diploma, Public Health	127	18	22	34	31	22
Diploma, Veterinary Public Health	21	...	6	4	2	9
Baccalaureate Degree (Nurses)	2,807	361	392	429	611	1,014
Certificate, Public Health	14	5	2	4	2	1
Certificate, Medical Technology	71	12	14	12	13	20
Certificate, Public Health Nursing	2,614	472	472	486	623	561
Other	72	7	7	7	9	52 *

* Includes a number of new degrees not hitherto reported—Master of Science, Engineering 19, Master of Hospital Administration 11, Master of Health Education 8

not been made in the current tabulations in the hope that the display of minute variations may hasten the process of reducing the nomenclature of public health engineering degrees to a common denominator.

Of the 528 students receiving graduate public health degrees, almost 70 per cent received the M.P.H. degree, or its Canadian equivalent, Diploma in Public Health; 44 persons, largely those in Columbia University's Hospital Administration course, received the M.S. degree; 20 persons, the Certificate of Medical Technology granted by the University of Puerto Rico; no other degree was granted to as many as 20 persons.

Among the sanitary engineering group of 179, only 3 degrees were given to more than 20 persons; M.S., or its Canadian equivalent M.A.Sc., to 57; M.S.S.E. (or M.S. in S.E.) to 34; and M.P.H. to 34. The remaining 54 persons received 12 different degrees.

Among the 1,701 students receiving public health nursing degrees, 126—about 7 per cent—received the Master's degree, a considerable drop in the proportion of these degrees over the previous year. Those receiving certificates also dropped from 42 to 33 per cent of the total. Conversely, those receiving the Bachelor's degree increased from 43 to 60 per cent of the total.

It is of further interest that an additional school, the University of Washington, was accredited jointly by the N.O.P.H.N. and the N.L.N.E. for the basic professional curriculum, qualifying the graduates for staff level positions in public health agencies that provide direct nursing supervision. Due largely to the additional school, graduates of such programs increased 40 per cent. One school in this group granted one-half of all the Master's degrees reported for all schools during the current academic year.

INCREASED TRAINING FACILITIES NEEDED

It is generally recognized that many of the students in graduate courses, especially medical administrators, are receiving further training for public health positions they already hold. Nor do the

existing schools have facilities for giving graduate training to a substantially larger number of students than they already have.

By 1950 it is expected that the School of Public Health of the University of Pittsburgh will be ready to train 50 or more graduate students annually. The Committee on Professional Education will study plans for one or more additional schools of public health located in strategic areas.

UNDERGRADUATE TRAINING IN ENVIRONMENTAL SANITATION

In order to have more definite information than has hitherto been available as to facilities for the training of persons who could fill positions in environmental sanitation in state and local health departments, a special study of baccalaureate degrees in sanitary engineering and sanitation has been made for the committee by the American Public Health Association Engineering Section Project. Recruitment of environmental sanitation personnel must start at the undergraduate level if present shortages are ever to be overcome. Furthermore, although it is recommended that sanitary engineers, most particularly directors of divisions, should have training beyond the baccalaureate level, presently many positions are filled by engineers and sanitarians without this additional training.

Questionnaires asking for information on baccalaureate degrees offered and granted and students enrolled were sent to 69 universities and colleges, the majority of whose civil or sanitary engineering curricula have been accredited by the Engineers' Council for Professional Development, a conference of national engineering bodies. Replies were received from 56, or well over three-fourths of the total. Of these, 33 reported that baccalaureate degrees were offered to students preparing for sanitary and public health engineering.

A like number of schools received questionnaires concerning sanitarian training leading to a baccalaureate degree. Of 51 replying, 7 reported offering degrees for students preparing for sanitation work on a non-engineering basis.

In reporting the number of students enrolled, the schools were asked to report only upper classmen, since academic work in the earlier college years is more general than specialized.

In analyzing the material it has been assumed that B.S. (Civil Engineering) reported offered by one school and granted to 12 students is the same degree as B.S. in Civil Engineering. Other consolidations could undoubtedly be made without doing violence to existing facts.

The 33 schools reporting sanitary engineering degrees, offered a total of 11 separate baccalaureate engineering degrees, 7 of them B.S. or one of its variants. The 6 sanitation degrees offered by the 7 schools were all B.S. or its variations.

The schools reported 352 sanitary engineering students and 67 sanitation students enrolled for baccalaureate degrees. Among the former, the largest number of students, 46, was reported by Manhattan College; only 5 other schools had 20 or more students, and 16, fewer than 10 students.

Nearly 40 per cent of those enrolled. 138 students, received public health or sanitary engineering degrees. Of the 22 schools graduating students, 12 gave degrees to fewer than 5 students, and only 6 to 10 or more. Of the 138 degrees granted, 65 were the B.S.C.E. degree (written B.S.(C.E.) or B.S. in C.E., for 50 students in 9 schools and B.S. in C.E. (Sanitary Engineering) for 15 students in 3 schools); 36 students received the B.C.E. degree (10 of them in one school with Sanitary Option as a part of the degree). No school reported offering more than one degree in the

sanitary engineering field. Thus it would seem that the desired consolidation of degree titles in the undergraduate field might be more readily accomplished than in the graduate area.

Six different degrees were offered by the 7 schools preparing students for sanitation work on a non-engineering basis, and again no school offered more than one degree. Of the 6 degrees offered, only 3 were granted in 1947–1948, B.S. to 19 students, B.S. in Sanitary Science, and B.S. in Bacteriology and Public Health, each to 4 students.

Perhaps the most discouraging fact revealed by this exploratory study is the limited source of students upon which the schools training graduates of public health engineering can draw. Nearly as many graduate as undergraduate sanitary engineering students were enrolled and more graduate than undergraduate degrees granted. It would appear, therefore, that the students doing graduate work are being drawn from other occupations, although one must not overlook the possible lingering effects of the war period dislocations. Whatever may be their influence, however, the necessity for active recruitment among undergraduates and even among high school students is unmistakable.

The questionnaire on undergraduate courses included an inquiry about the extent of vocational guidance given to underclassmen. Of 45 universities reporting, 36 reported vocational guidance and 9 did not give guidance. In 30 instances, these students were advised of the educational requirements for sanitary engineering and in 9 they were not. Forty of the universities gave underclassmen information on career possibilities open to the sanitary engineer, while 4 did not. Several universities reported that apparently career opportunities were not being sufficiently emphasized to attract students to sanitary engineering courses. Although the significance of this inquiry is limited, it again points to the fact that neither the engineering nor the public health professions are giving high school and early college students sufficient information about the rewarding possibilities of a sanitary engineering career.

W. P. SHEPARD, M.D., *Chairman*

NOTE: For previous reports see Vol. 38, p. 86; Vol. 37, p. 67; Vol. 35, p. 1311; Vol. 34, p. 1264; Vol. 33, p. 1430; Vol. 32, p. 1360; Vol. 31, p. 1306; Vol. 30, p. 1456; Vol. 29, p. 1338; Vol. 28, p. 863; Vol. 27, p. 1267; Vol. 26, p. 819; Vol. 25, p. 341; Vol. 23, p. 1124.

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1949–1959

NOW that the election is over and the smoke of conflict has begun to clear away it is possible once more to consider public issues on their merits and without reference to their effect on the fate of candidates or parties. To the readers of this *Journal,* the future of public health in these United States is a public issue of paramount importance; and it is fitting that we should give serious attention to a document published last September and consider its significance for a nation which has passed through the throes of a Presidential conflict, and should now be ready to discard partisanship and prejudice and plan for united efforts to promote the welfare of the American people.

We refer, of course to the report of Oscar R. Ewing, Federal Security Administrator entitled "The Nation's Health: A Ten Year Program." This report is based, for the most part, on the deliberations and unanimous conclusions of the National Health Assembly of last May; and has already been reviewed in our "News from the Field"[1]; in which review the nine major health goals outlined in the report are listed in some detail. These goals are of three general types. There is first, essential need for increased personnel and facilities. Mr. Ewing estimates that we shall require by 1960, 600,000 more hospital beds than we now have; and that the output of our medical schools must be increased by 40 per cent, and that of our dental schools and nursing schools by 50 per cent, if we are to reach minimum standards by that year. In the field of public health administration, complete coverage of all areas with basically equipped health units is, of course, held to be essential. The report, in the second place, emphasizes the need for expanding health services of all kinds to include competent challenges to problems now unmet, such as complete programs for child health, for mental health, and for care and rehabilitation of chronic disease. For attainment of the ends outlined above, it is suggested that our governmental expenditure for health (federal, state, and local) be increased from its 1947 figure of slightly under $2 billion to slightly over $4 billion; and indicates a saving of $27 billion a year from possible resulting economies in life and health.

Mr. Ewing's third major objective is to eliminate the economic barriers which now prevent the outstanding potentialities of American medicine from reaching in full measure the groups which are most in need of them. He emphasizes the fact—so familiar but so commonly ignored—that (in 1946) 28 per cent of our families had family incomes below $2,000. He believes that we must "assure that every individual without regard to his economic status has full access to adequate medical services for the prevention of illness, the care and relief of sickness and the promotion of a high level of physical and mental health."

This objective obviously implies—in addition to provision of standard preventive service—that some way must be found for securing those individual medical services for which the family of modest income cannot possibly budget, and for providing such services on a basis which preserves the self-respect of the household without labelling them as paupers.

To attain this end, it is obvious that some form of orderly prepayment is essential. Mr. Ewing quotes with approval the conclusion of the National Health Assembly that "The principle of contributory health insurance should be the basic method of financing medical care for the large majority of the American people, in order to remove the burden of unpredictable sickness costs, abolish the economic barrier to adequate medical services and avoid the indignities of a 'means test.'" Many plans of this kind are operating on a voluntary basis; but Mr. Ewing points out that as a rule, the benefits which such plans offer are limited in scope; that the plans cover only a small proportion of the people; and that it is almost impossible that they could ever reach the lower half of the population, from an economic standpoint. He therefore, in this report, goes in this one respect, beyond the conclusions which the Health Assembly was able to reach with unanimity; and advocates a national health program of prepaid health insurance which will mobilize the total group-purchasing power of the people in the interest of all. The plan which Mr. Ewing proposes is a gradual and highly flexible one. It includes a preparatory "tooling up" period and the beginning of actual service only after three years, and then including at first, only such services as existing resources permit and with coverage as broad as may seem practicable at the time. Actual operation would, of course, be decentralized to the states; and complete freedom of professional personnel explicitly assured. The report analyzes various objections to such a program, the bogies of "socialization" and "compulsion," the question of adequacy of personnel to carry out the plan (a serious and important one), the cost of the program and its possible effects on quality of service (another most vital problem). We urge all thoughtful students to read these pages of the report.

Mr. Ewing points out that success in this—or any other—program will depend on community understanding and community support. The role of the federal government in health is to provide for leadership and coördination and to fill gaps which cannot be filled by state and local action. Therefore he makes the sound and fruitful suggestion that state and local health assemblies be called throughout the nation to follow the pattern of the highly successful National Health Assembly of last May. Such assemblies should form the best possible basis for local health planning and for intelligent support of whatever federal legislation is essential as a framework for state and local progress.

REFERENCE

1. *A.J.P.H.*, 38:1615 (Nov.), 1948.

"PUBLIC HEALTH REPORTS" FOR OCTOBER 8, 1948

THE weekly bulletin of the U. S. Public Health Service is, of course, a familiar and essential source of information to every student of public health. One particular issue which appeared last fall contained two articles of such significance as to deserve special notice.

One of these articles, by I. M. Moriyama, discusses the apparent increase in mortality from diabetes in the later decades of life which has occurred in recent years. Since Banting and Best discovered insulin in 1922, the diabetes death rate at ages over 64 years has more than doubled; and as Moriyama points out this is chiefly due to the system of automatic allocation of joint causes of death. When, for example, heart disease was reported by the physician as a primary cause of death with diabetes as a contributory cause, the system of priorities accepted by statistical offices credited the death to diabetes. As a result, the more effectively diabetes was controlled by insulin, the more diabetics would live to old age to die of heart disease; and the more rapidly the recorded death rate from diabetes would increase. In the present year, a new procedure adopted by the International Conference for the Sixth Decennial Revision of the *International Lists of Diseases and Causes of Death*, held in Paris last April, will go into force, placing more direct responsibility on the physician for determining the actual cause of death.[1] Our future statistics will show unfortunate breaks with past trends but they should be of far greater significance.

A second paper in this same issue of *Public Health Reports* is a well planned epidemiological study of the influence of a fly control program on diarrheal diseases by James Watt and D. R. Lindsay. In a district of the Rio Grande River Valley of Texas, the population was divided into two approximately similar and nearly equal areas. In the towns of Group A a vigorous program of fly control was initiated in April, 1946, and continued until August, 1947. In the areas of Group B such a program was initiated in September, 1947 (when it was discontinued in the towns of Group A), and continued to February, 1948. The index of fly prevalence in Group B ran continually above that of Group A until the shift in procedure. In both summers it reached a maximum seven times as high as that for Group A. When the fly control program was transferred to the Group B area, the lines crossed at once and for the late fall of 1947, flies in Group A areas were nearly ten times as numerous as in those of Group B. Parallel examination of stools in the two areas showed 1.9 per cent of stools yielding *Shigella* organisms in Group A while it was protected as compared with 4.2 per cent for Group B. After fly treatment was transferred to Group B, this area showed only 2.4 per cent of such infection as compared with 2.5 per cent for Group A. Attack rates of diarrheal diseases among children under 10 years of age showed exactly the same curve, with higher rates for Group B than for Group A so long as Group A was fly protected and a reversal of the situation when fly control was shifted to Group B. Finally, precisely the same relationship was shown with regard to reported deaths from diarrhea and dysentery in children. This is an unusually neat and adequate example of competent experimental field epidemiology.

Our fraternal congratulations to the Editor of *Public Health Reports* on this admirable issue.

REFERENCE

1. Fales, W. Thurber, and Moriyama, Iwao M. International Adoption of Principles of Morbidity and Mortality Classification. *A.J.P.H.*, page 31, this issue.

WHY IS AN ALCOHOLIC?

THE growing interest in alcoholism as a psychosomatic rather than a moralistic problem will be strengthened by a recent study from the University of Southern California. Dr. M. P. Manson has developed, after extensive preliminary study, a group of 72 questions designed to reveal certain significant differences in personality; and, in a final phase of the study, the response to these questions was recorded for 268 alcoholics and 303 nonalcoholics. The 2 groups revealed distinct and statistically significant differences with regard to seven personality characteristics, anxiety, depressive fluctuations, emotional sensitivity, feelings of resentment, failure to complete social objectives, feelings of aloneness, and poor interpersonal relationships. The alcoholics showed markedly higher scores on these points than the nonalcoholics, and taking a given total score as a dividing line, 4 out of 5 of the total group of 571 persons would be correctly classified as either alcoholic or nonalcoholics by the test above.

The study seems a competent and promising one, and deserves serious attention and repetition. We must leave to the psychologist the question as to how far emotional problems lead to excessive drinking, and how far the reverse relation may obtain; but the fundamental nature of the personality traits revealed would seem to indicate the former relationship.

REFERENCE

1. Manson, M. P. A Psychometric Differentiation of Alcoholics from Nonalcoholics. *Quart. J. Stud. on Alcohol*, 9:175 (Sept.), 1948.

Clearing House on Public Health Salary Information

1948 STATE SALARY STUDY

The second annual study of salaries of public health personnel in state health departments was published in October, 1948, by the Public Health Service in coöperation with the Association of State and Territorial Health Officers and the American Public Health Association. It is based on reports from the 48 states reporting nearly 6,000 professional workers and representing all the professional groups usually employed in state health departments.

The salary figures are for August, 1948, nine months later than the time of the first study. In that period median annual salaries had increased by $400 for medical and sanitation (non-engineering) personnel, by $200 for sanitary engineers, laboratory personnel, supervisory and consultant nurses, and nutritionists, and by $100 for staff level public health nurses and graduate registered nurses.

Although 4 state health officers were receiving less than $6,000, more than one-fourth were receiving $10,000 or more. The 14 states paying $10,000 or more are northern, southern, eastern, western, industrial and agricultural, and both thickly and sparsely settled. One state health officer serving a population of less than a million received the same salary as one serving nearly 10 million.

The median salary of state health officers was $7,500 paid by 5 states. Thirteen state health administrators received less than $7,000. The average annual salary was $8,247, an increase of $622 over that of November, 1947.

Among the directors of specialized medical services, the highest annual salary reported was $12,000 for a director of tuberculosis control activities. Next was a state director of local health service at $11,000. The salary of no other medical specialty director was as much as $10,000. The lowest salary paid in this category was $4,500 in 2 instances. Average salaries for the various categories of workers are shown in the Table A below. It will be noted that of four groups, salaries of directors of local health services had the highest average, those of directors of maternal and child health services the lowest.

TABLE A

Increase in Average Salaries for Program Directors

Position	*November, 1947*	*August, 1948* — *Amount*	*Percentage Increase*
Health Officers	$7,625	$8,247	8.2
Directors of Local Health Services	6,695	7,354	9.8
Directors of Maternal and Child Health Services	6,264	6,829	9.0
Directors of Venereal Disease Control Activities	6,407	7,017	9.5
Directors of Tuberculosis Control	6,643	7,311	10.0
Directors of Public Health Dental Services	5,714	6,211	8.7
Directors of Sanitary Engineering	6,117	6,528	6.7
Directors of Laboratory Services	6,095	6,394	4.9
Directors of Public Health Nursing	4,414	4,722	7.0
Directors of Vital Statistics	4,546	4,802	5.6

Average salary increases of medical administrators of specialized health activities during the nine month period ranged from 9 to 10 per cent while those of health officers averaged 8 per cent. The smallest increase of 5 per cent was found among directors of laboratory services and the lowest salaries for directors of public health nursing.

A study of the details of salary levels in the various regions of the country as divided into U. S. Public Health Service regions indicates that salary levels among the various groups in the public health profession have no consistent relation to each other. The Pacific states, for example, which have the highest median salary range for medical personnel, have the lowest for sanitary engineers. Southern states reported the highest median health officer salaries but the lowest for nursing and sanitation personnel.

It is obvious that a mosaic of factors determines salary levels for various groups in each state. An analysis of that mosaic into its components and the discarding of irrelevant factors is the goal of a further study in prospect, the purpose of which is to find common denominators for the various job titles.

The current study is available in limited quantities from the American Public Health Association. It is a valuable tool for administrators who are recruiting personnel. However, it should be borne in mind that these are raw data and must be studied in relation to the region of the country, the state's program, the going professional salary scale, and many other items.

COST OF LIVING FIGURES

The *United States Municipal News*, published by the U. S. Conference of Mayors, included in its December 1, 1948, issue (15:23) a summary of cost of living figures, analyzed into components such as food, clothing, etc., for every year beginning with 1939, and monthly for September, 1947–September, 1948. This shows that the cost of living has almost doubled since 1939, 40 per cent of the increase having taken place since August, 1947. Food and clothing show the largest increases, rent the smallest. The neat little compact table of these figures is a handy gadget to have in reserve when discussing recruitment matters with county commissioners or state legislators. The figures, of course, are those of the U. S. Bureau of Labor Statistics. *United States Municipal News*, 730 Jackson Place, Washington, D. C.

BOOKS AND REPORTS

All reviews are prepared on invitation. Unsolicited reviews cannot be accepted.

Society as the Patient—*By Lawrence K. Frank. New Brunswick, N. J.: Rutgers University Press,* 1948. 395 pp. Price, $5.00.

Lawrence Frank has brought together 30 of his articles published in professional journals over a period of 25 years. They range over the fields of economics, social psychology, education, the arts and the sciences. A critical reading of these essays furnishes an illuminating picture of the ideas and proposals of a man who is considered one of our leading social philosophers. Public health workers will be interested particularly in his concepts of the "etiology," "diagnosis," and "treatment" of our social problems—especially mental health.

He has adopted the concept of a sick society in need of treatment in order to simplify (or oversimplify) the discussion of a multiplicity of social problems each demanding special attention. He arrives at the rather startling "diagnosis"—"That we can view all of them as different symptoms of the same disease." The book abounds in such bold generalizations that it is provocative as well as profitable reading.

Two of the essays furnish keys to the author's diagnosis of our social ills—"Society as the Patient" and "Dilemma of Leadership." These essays present a gloomy, melancholy picture of our culture. It requires optimism not to be convinced that the "patient" (society) is not "sick unto death," and that we lack any leaders who are not driven by their frustrations, compulsions, and sense of guilt to seek personality fulfillment through exploitation of society. We disagree on both counts—even though we accept the accuracy of many of the examples cited. The difference of opinion lies in the breadth of the generalizations derived from them. For the author so classifies the majority of leaders in politics, business, industry, finance, the professions, education, and religion. He absolves them from personal guilt and places the responsibility upon our disintegrating culture.

Among the important determining factors (according to Frank) in this cultural disintegration are the competitive system and the distorted personalities created by the ineptness of our practices for socializing the child in the home and the school. The "treatment" prescribed is the reconstruction of our culture and the creation of a new design for living.

The essays of greatest practical usefulness to public health workers are those concerned with education and mental hygiene.

The reader may be surprised to learn that Frank chooses the psychiatrist to be the best *social diagnostician,* the artist as the outstanding *social teacher,* and the historian as a valuable *social therapist.* One may disagree definitely with some of the views expressed but they compel one to re-appraise both thinking and practice. This is a wholesome exercise if we follow the advice of Lyman Bryson in his foreword to "treat all of Mr. Frank's materials with rigorous caution." WALTER H. BROWN

Psychobiology and Psychiatry—*By Wendell Muncie. (2nd ed.) St. Louis: Mosby,* 1948. 620 pp. Price, $9.00.

The second edition of Dr. Muncie's book is, like the first, intended primarily for the use of medical students. It has three main divisions: Psychobi-

ology—the study of normal behavior; psychiatry and pathology — abnormal behavior; and treatment. The author omits child psychiatry, but otherwise the volume covers the psychobiology and psychiatry courses given at The Johns Hopkins Medical School. Dr. Muncie has undertaken to present the teachings of Adolf Meyer, with some modification based on his own experience in private practice.

The task of presenting psychobiologic psychiatry is difficult because this school of thought offers no systematization to explain everything comfortably. Self-characterized as "eclectic and pragmatic," it lacks the order and appeal of the Freudian school, for example. The presentation of dynamic concepts of disease, its diagnosis, prognosis and treatment, call for a high order of teaching and writing. That this book is difficult to understand is only partly attributable to the difficulty of the concepts, however. It is true both of Dr. Muncie and Dr. Meyer that in the translation of their thoughts and teachings into writing, a lack of simplicity makes it hard for us to gain the understanding that undoubtedly would come from personal contact with these men.

Part I, psychobiology, is written around an outline and guide for the student's study of his own personality. This would seem to be an effective means of capturing and holding the interest of the student, but much of the good effect is lost through the author's polysyllabic, professorial style. This section would gain in interest, too, if more information were given the reader not associated with The John Hopkins Medical School as to how the student's personality study is presented and evaluated.

The 377 page section on abnormal behavior, Part II, begins with an explanation and defense of psychobiologic psychiatry, includes an instructive chapter on examination methods, and systematically covers the field of abnormal behavior. The various disorders are well illustrated by case records. It is regrettable that Dr. Muncie has made a sharp separation between disease and its treatment. The section on treatment, Part III, is a helpful survey of general methods and the management of "specific" disorders, and deserves a separate place in a book such as this. However, excellent teaching opportunities have been lost by failure to relate treatment more closely to pathology. The effect on the reader is an impression of an almost nihilistic theory of treatment in view of the doctrine of psychobiologic psychiatry, which places emphasis on meeting the problem at hand with whatever method seems most likely to produce good results, and which does not rely on any special scheme of explanation or treatment.

In general this is a useful book, bringing a good deal of common sense and a reasoned perspective to what is still a too vague field. It should find its greatest use and popularity in undergraduate medical teaching.

PAUL A. LEMBCKE

Diagnostic Bacteriology—*By Isabelle Gilbert Schaub and M. Kathleen Foley. (3rd ed.) St. Louis: Mosby,* 1947. 532 pp. Price, $4.50.

This is a revised and enlarged edition of a text previously titled *Methods for Diagnostic Bacteriology*, originally compiled as a manual of methods for bacteriologists in diagnostic and autopsy laboratories of The Johns Hopkins Hospital and School of Medicine.

The first chapter presents technics for the use of agar plate media for the isolation and purification of cultures, and includes a section on the rapid paper disc method for determining susceptibility to penicillin and streptomycin. A long chapter then outlines procedures of choice for culturing specific pathogenic or autopsy materials or in

examining such materials for specific organisms. A chapter is devoted to detailed descriptions of the colony characteristics of pathogenic organisms with special emphasis on blood agar plate cultures. Next is a series of chapters giving the biological characteristics useful for the identification of pathogenic organisms with a series of schematic charts giving the differential characteristics within the various groups of bacteria. The unusual amount of space devoted to agar plates and colonial characteristics is based on the belief that a careful study of agar plates in connection with a knowledge of the source of the material and the organisms most likely to be found at such a site will frequently enable the medical bacteriologist to identify tentatively pathogenic organisms within 24 to 48 hours.

Part II of the manual deals with serological methods, detailing technics for the identification of cultures by agglutination and precipitin tests and for the examination of patients' sera by agglutination tests. No mention is made of the use of complement-fixation tests for these purposes. The final Part III gives formulae for media, stains and reagents, and directions for their use.

The text is well organized, with cross-references clearly stated, and with page numbers and references to original literature inserted in the body of the text. The fact that it is a methods manual is emphasized by every other page being left blank.

Although this manual is primarily for the hospital laboratory, its approach and methods are equally applicable to the diagnostic division of the public health laboratory. E. K. KLINE

The Abnormal Personality—*By Robert W. White. New York: Ronald Press,* 1948. 613 pp. Price, $5.00.

Among other chapters, this volume contains the following: Origins of Abnormal Psychology; Examples of Disordered Personalities; the Development of Personality; Fantasy, Dreams, and Hypnotic Behavior; Anxiety and Defense; Neurotic Conflict; Psychotherapy; Delinquent Behavior; Psychosomatic Diseases; Abnormal Conditions in the Brain; the Psychoses; Schizophrenia, etc.

The author of this book wants it to be known as a textbook, and a very useful one it is. Not only the student of psychology will benefit greatly from perusing it, but also the general practitioner of medicine who has not specialized in psychiatry. Indeed, it should be of great help to the public health officer and to any intelligent and cultured layman who wishes to become acquainted with the anomalies of human thinking. It is clearly, simply, and beautifully written and brings the subject up to date. Its introduction on the development of psychiatry is splendid. The book describes the abnormal personality from all angles. The author deserves particular credit for not having forgotten, as others so often do, the social and economic viewpoint both in the causation of the abnormalities and in the frequent hints as to the remedial measures. The examples from life, either original or quoted from the literature, are well selected and perfectly illustrate the theoretical text. The one dealing with the criminal boy who, trapped in delinquency through his home life and his later relationships, is pathetic and absolutely true. The last section, "The Problem for Society," will be particularly interesting to anyone who thinks along broad lines: "The problem of disordered personal reactions is one that cannot be solved without reference to the society in which they occur," is its first sentence.

The reviewer feels that some descriptions, like that of hypnosis, are unnecessarily elaborate and misses the following: a chapter on the normal personality or perhaps a good explanation as to

what personality is; also, although not strictly related to the topic, one regarding mental deficiency; a consideration of the lighter, the very light transition cases between mental health and mental disease; and finally, something about abnormal group or mob abnormal psychology. Nor can we fully agree with the definition that the "distinguishing mark of psychosis is an almost complete loss of contact with the surrounding world," which is exaggerated. And again, we believe that the author is wrong in trying to replace the expression "psychoneurosis" by "neurosis," these being really two different terms.

B. LIBER

Sanitation for Food Handlers and Sellers—*By Berl Benmeyr. Los Angeles: The American Institute of Sanitary Science,* 1948. 126 pp. 123 illus. Price, $4.95.

Instruction of foodhandlers, carried out by departments of health and departments of education during the past 10 years have been effective in sensitizing these much criticised and not easily forgotten employees to the careful and safe methods of storing, preparing, and serving of food. The instruction has varied from short talks or incidental information, to study groups, clinics, and short courses. The inevitable outgrowth of these various methods of foodhandlers' training has been the home study course devised by Berl Benmeyr in this paperbound booklet, which is amply illustrated with cartoons and intended primarily for restaurant owners, operators, and the employed foodhandlers.

The book is divided into four parts, each part followed by a series of questions of the true and false variety. The text is written so that it can be understood by the average porter, dishwasher, chef, waitress, or manager and proprietor. In many instances the author minces no words. Sections are devoted to the prevention of food spoilage and food poisoning, dishwashing, personal hygiene, lavatory and hand washing facilities, equipment construction, how to make friends and influence the health inspectors, and other worth while subjects.

For those health officers who desire to start foodhandling courses or who want to change their present procedures of instruction, the booklet is recommended. For the proprietor of the restaurant, tavern, drive-in, lunch room or similar establishment who wants an easy way to instruct his employees in correct sanitary procedures, the booklet is also recommended.

The paper binding, 8½" x 10¾" size, and lack of a table of contents and index do not enhance its use.

The author has to some extent pointed the information to West Coast foodhandlers and has limited his instructions to restaurant employees. There is a need for a book of this sort for use by all types of foodhandlers, not only those in a portion of the food industry.

FERDINAND A. KORFF

Motivation in Health Education, Report of the Annual Health Education Conference of the New York Academy of Medicine, 1947. *New York: Columbia University Press,* 1948. 53 pp. Price, $1.00.

As Dr. Donald B. Armstrong states in the foreword, "The theme of this small volume embraces one of the most important problems in education. How can the educator make his instruction effective in the behavior of those whom he teaches?"

This volume consists of four provocative discussions by outstanding leaders in health education, psychiatry, and anthropology. The subjects discussed include The Problem of Motivation in Health Education, by Dr. Iago Galdston; The Changing Patterns of Motivation, by Dr. W. W. Bauer; Myths

and Resistances in Health Education, by Dr. Lawrence S. Kubie; and Positive Motivations in Health Education, by Dr. Margaret Mead.

This compact volume will appeal to the reader as a stimulant toward further study and exploration of the problem of motivation in health education.

A. HELEN MARTIKAINEN

The Rockefeller Foundation — A Review for 1947—*By Raymond B. Fosdick. New York: The Rockefeller Foundation,* 1948. 64 pp. Free on request.

This is a masterful review of an outstanding philanthropy during a critical year. It recounts the expenditure of more than 23 million dollars during 1947, which sum exceeded the Foundation's income from investments by 13 million dollars. Included in these appropriations are one of 10 million dollars for the China Medical Board and one of 3 million for social sciences (both of them exceeding the 2¼ million appropriated for public health and 1½ million for the medical sciences).

Those familiar with President Fosdick's style will want to read the text itself which is one of the best oriented statements of our world condition known to the reviewer. "The issues of our time and of human destiny," says Dr. Fosdick, "will be determined, not at the physical, but at the ethical and social level."

Dr. Fosdick uses the activities of the World Health Organization as a pertinent illustration of how medicine and health overpass national boundaries. "Public health work carries no threat to anybody, anywhere. Cancer and scarlet fever have no political ideology . . . the principles of sanitary engineering do not bear a Russian or an American label." Dr. Fosdick believes that the present is one of the supreme moments of challenge, in which the character of our response determines the chances of survival, and he proceeds to illustrate how the Rockefeller Foundation used its funds and its experience for the benefit of mankind throughout the world. This is highly recommended reading. REGINALD M. ATWATER

Health in Schools — Twentieth Yearbook. *(5th ptg.) Washington, D.C.: American Association of School Administrators,* 1948. 400 pp. Price, $1.50.

First issued in 1942 and now in its fifth printing, this *Yearbook* is meeting a real need. This is an important publication, especially since it is an official document from the American Association of School Administrators. Official and voluntary health agencies will find much of interest in this book. The official point of view of school administrators regarding school health is outlined in considerable detail. Emphasis is placed upon development of a school health program which benefits all children and utilizes all the resources within the community.

Of particular interest to health officers and school administrators alike is the point of view expressed on page 300:

> In the field of education the school cannot delegate its responsibility. Society is demanding that its activities be extended to groups both younger and older than the traditional school-age groups. The health department concerns itself with the health education of another part of the general public. For the health department to say that everything that has to do with health must be administered by it, and for the school system to say that all education in the community must be administered by it, would be equally absurd. On the other hand, the health department must be concerned with the professional quality of health services carried out in the schools, and the school system must be concerned with the educational outcomes of those same services no matter which agency employs the personnel.

Written six years ago, some of the references, especially those relating to federal agencies, are out of date. However, the basic philosophy and the pro-

cedures described in the book are sound and are fundamental to the development of good school health programs. Everyone interested in the health of school age children is urged to study this *Yearbook*.

S. S. LIFSON

Safety for the Household. *U. S. Department of Commerce, National Bureau of Standards, Circular 463. Washington, D. C.: Gov. Ptg. Office,* 1948. 190 pp. Price, $.75.

Unique in being the most complete work yet published on home safety, this handbook fulfils a need for an authentic text.

Presented on the academic level in a style readable for the average householder as well as for the student, this book can serve as a guide for the use of public health nurses, family social workers, and others who are in a position to observe family practices and the environment of the home.

Contents of the book are divided into such classifications as Chemical Hazards, Electrical Hazards, Fire Hazards, Gas Hazards, Lightning, Mechanical Hazards, Yards and Gardens, Suggestions for Building a Home. The introduction gives a measure of the problem and deals with the organized movement, and a list of sources for materials. A check list of 44 questions is included.

In their introduction the authors call attention to their aim in the book, which is not to cause undue anxiety but rather to suggest means of removing causes for alarm. "Caution alone is not enough," state the authors, "because many of the dangers are not commonly known." New types of equipment for the home; miniature engines so widely used in toys; radio and television sets, and other devices which call for high voltage circuits, all place upon the modern householder a responsibility for extending his information about the prevention of accidents.

Paper covers in the shade of green used for safety, clear type, sketches and a good grade of paper add to the book's inviting appearance and readability.

ETHEL M. HENDRIKSEN

A Guide to the Selection and Training of Food Service Employees —*Prepared by a Committee of the Food Administration Section of the American Dietetic Association. Minneapolis: Burgess Publishing Company,* 1947. 47 pp. Price, $1.50.

This manual is a guide for dieticians and food service directors. It should be of particular interest to dieticians, because in part it clearly outlines the administrative position of the dietician as the supervisor of a food service program. The guide is divided into two parts; Part I, Preparation for a Training Program, and Part II, The Training Program.

The first part of the manual is expertly worked out and should be of value to any food manager. It outlines job requirements, methods to select employees, how to determine worker requirements, and includes sample illustrations of employment applications, interview forms and record forms.

Part II, The Training Program, includes methods of training, job relations, use of equipment, cooking methods, food standards, sanitation and a valuable reference list, including sources of visual aids.

Essentially this is a preliminary study of the problem of selection and training of food service employees. Its general form should accomplish the purpose for which it was written, as a basis for the development of a more detailed manual. It is, however, necessary to add that competent public health consultation should be sought by the American Dietetic Association, before attempting to construct a more detailed manual. For example, the authors have led the reviewer to believe that they are not familiar with the limitations of physi-

cal examinations. A few minor points on personal hygiene and sanitation are open to question. In general, however, this is an excellent guide for the purpose for which it was intended.

WALTER S. MANGOLD

The Chemical Composition of Foods—*By R. A. McCance and E. M. Widdowson. (2nd ed.) New York: Chemical Publishing Co.*, 1947. 156 pp. Price, $3.75.

The first edition appeared in 1939 and has had three reprintings, attesting to the value of the book and the necessity of a new edition. This book supplies data in the form of tables, two sets of which are included; the first lists composition per 100 grams, while the second tabulates compositions per ounce. The constituents listed include water, sugar, starch and dextrins, total nitrogen, protein, fat, available carbohydrates, and calories; sodium, potassium, calcium, magnesium, iron, copper, sulphur, phosphorus, and chlorine; acid-base balance expressed in cubic centimeters of one-tenth normal solution. About 540 British foods are analyzed. These include many cooked foods, the recipes for which are given. This is undoubtedly one of the most complete and up-to-date books on food composition that have come to the reviewer's attention. Data on vitamins are not included. The book is excellently indexed.

CARL R. FELLERS

Health Center Buildings—*By Harry E. Handley. New York: Commonwealth Fund*, 1948. 48 pp. illus. Price, 50 cents.

Community leaders interested in experience in rural health centers with regard to location, space requirements, architectural design and use of the building, will welcome the Commonwealth Fund's excellent report on these phases of its now completed program of health demonstrations.

The report, in brief form, deals with the general purposes and local control of the Fund centers, with design and equipment of the buildings and considerations in planning a health center.

The report gives a summary of information concerning each of the several centers and the area they serve. Tabulations give such information for each area as the number of square miles, population, the number of physicians, dentists, hospital beds, health department budgets, and per capita costs.

There is a drawing and floor plan for each building, together with a summary of the essential facts, such as births, deaths, principal sources of income, medical and hospital services available, special health problems, health department staff and cubage, construction costs, and area of the buildings.

An appendix to the report gives data obtained from questionnaires on the use of the first six Fund centers. This is of special interest since it presents practical criticisms and suggestions by health officers and others based on their administration and use of the buildings.

KENNETH D. WIDDEMER

Thyroid Enlargement and Other Changes Related to the Mineral Content of Drinking Water (with a note on Goitre Prophylaxis) Medical Research Council Memorandum No. 18—*By Margaret M. Murray, J. A. Ryle, Beatrice W. Simpson, and Dagmar C. Wilson. London, Eng.: His Majesty's Stationery Office*, 1948. 39 pp. Price, Ninepence net.

This painstaking and scientifically accurate study, carried out in the British Isles is a real contribution to our knowledge of food deficiencies.

The method of examination for thyroid enlargement and its classification is satisfactory for such clinical studies. However, instead of using such terms as "physiological goiter," it would be more accurate to teach that: There are

periods, such as puberty and rapid growth, pregnancy and gestation, or illness and malnutrition, when the "physiological demand" for thyroid hormone and iodine is greatly increased, thereby causing a depletion of thyroid hormone, and this condition produces the physiological changes in the gland of cellular-hyperplasia and glandular hypertrophy or goiter. This deficiency of thyroid hormone is always due to a lack of iodine, and if the gland is kept supplied with this fundamental food element it can meet all of the increased physiological demands without undergoing any of the above described histopathological changes or goiter.

The distribution of goiter throughout England, Ireland, and Scotland corroborates the findings in this country; that is, areas of endemic goiter are found fairly close to the sea, which is contrary to earlier teaching.

In this survey the food iodine in any community was measured solely from the amount of iodine in the water supply. However, in some sections of the world food iodine is obtained from natural salt and this would not be estimated when only the drinking water is studied. In other sections food iodine from sea foods will be an important factor when endemic goiter is less than would be predicted from the iodine content of the drinking water.

Again the age old question is raised: Does the hardness of the water (a high calcium content) cause goiter? A high calcium content in the drinking water may, in some way, interfere with the utilization of the iodine, but it does not change the fundamental concept that goiter is due to a deficiency of available iodine.

The careful analysis for fluorine in the drinking water and the presence of fluorosis in certain localities, is a valuable contribution. The geographical distribution of mottled enamel or fluorosis in the United States has been fairly well established. The best known areas of fluorosis do not correspond to the areas of endemic goiter. There is always some overlapping with an occasional goiter in areas of fluorosis. However, there is practically no known fluorosis in our most severe endemic goiter district. Public health officials, who have studied both fluorosis and endemic goiter, state that the excessive fluorine, which produces the mottling of the teeth does not affect the thyroid, nor is it a possible factor in the etiology of endemic goiter.

We agree with the authors that iodized salt is the most efficient and practical method of prophylaxis of endemic goiter.

O. P. KIMBALL

Widening Horizons in Medical Education 1945–1946—*A Report of the Joint Committee of the Association of American Medical Colleges and the American Association of Medical Social Workers. New York: Commonwealth Fund,* 1948. 228 pp. Price, $2.75.

Prerequisite to treating the "whole person" is an understanding of his social and environmental background. Unfortunately the present trends in medical practice lessen the opportunity for clinicians to observe these factors directly. As there is an increasing number of visits to offices, clinics, and hospitals, there is a corresponding decrease in house calls and personalized service. The medical student is apt to have even less insight into the problem for he may never have seen a patient in his own habitat.

To cope with the dilemma of adequate medical-social teaching, the Association of American Medical Colleges in 1941 appointed a committee which later collaborated with the American Association of Medical Social Workers. This joint committee was not so much concerned with the ultimate objectives in training medical students, nor with a definition of the segment to be fulfilled by the professional social worker, as it

was with a survey of the teaching done in this field by medical schools throughout the country. From their report it is evident that some schools have well integrated plans of teaching the medical-social aspects of illness, but one must conclude that the field is seriously neglected in the majority. Those charged with the responsibility of educating the pre-medical student, as well as those teaching medical students, should profit greatly from the studies of the committee and find their suggestions invaluable in planning an adequate curriculum.

WILLIAM W. STILES

Advances in Food Research. Vol. I—*Edited by E. M. Mrak and George F. Stewart. New York: Academic Press,* 1948. 459 pp. Price, $7.50.

This book consists of ten reviews, reports, and articles by a dozen different authorities on various aspects of nutrition, food technology, microbiology, biochemistry, and other important subjects in the food field. Included is material on the factors affecting the aging of beef, the vitamin content of canned foods, the physiological basis of voluntary food intake, dried whole eggs, the palatability of poultry, processed potatoes, the influence of climate and fertilizer practice on the vitamins and minerals in vegetables, the browning of fruit products, food preservatives, and the deesterification of high-polymer pectins.

It is interesting to note, for example, that the location and season in which plants are grown have a profound effect upon their content of ascorbic acid, and that the amount of available sunlight is the most significant factor in the development of vitamin C in many vegetables, although other factors play a part in the production of this vitamin, as well as of carotene. In the light of these facts, some of the data in existing vitamin tables may have to be reëvaluated and possibly revised.

The book is well printed and has a good index, and each review is well documented. It should prove of great value to nutritionists, food technologists, and all others who are interested in or concerned with food research.

JAMES A. TOBEY

Best's Safety Directory (of Safety, First Aid, Hygiene and Fire Protective Products)—*(2nd Annual Edition), 1948. New York: Alfred M. Best Company, Inc.,* 1948. 494 pp. Price, $5.00.

The volume consists of 8 pages of introduction, 415 pages of directory, a 53 page geographical breakdown of sales offices and distributors of products listed, a 16 page index to products listed, and a 2 page index to advertisers. The directory itself is subdivided into nine major sections: Fire Protection (57 pp.), Personal Protection (137 pp.), Personal Hygiene and Sanitation (33 pp.), Plant Maintenance and Sanitation (54 pp.), Above-Ground Protection (27 pp.), Liquid and Solid Materials Handling (24 pp.), Atmosphere Control (28 pp.), Machinery Guarding and Control (28 pp.), and Training and Warning Aids (27 pp.). These nine major sections are still further broken down into about six further subdivisions, such as (under the heading Personal Protection), Respiratory, Head, Eye and Face, Arm and Hand, Body and Leg Protection.

A typical subdivision, that on Eye and Face Protection, contains its own introductory page, 16 pages of item listings, 2 pages of "Recommendations for Eye and Face Protective Products" and 14 pages of product advertisements. Each item listing, such as that for "Goggle-Eyecup-Chemical" consists of a one paragraph description and the customary list of names and addresses of manufacturers of this type of goggle. Photographs illustrating items listed appear on almost every page.

The directory is well printed and bound. The text, listings and indices are adequate for the purpose indicated by the title of the directory.

ARTHUR C. STERN

American Rural Life—A Textbook in Sociology—*By David Edgar Lindstrom, New York: Ronald Press,* 1948. 385 pp. Price, $4.00.

Workers in practical programs of health or welfare sometimes avoid literature labeled "sociological" because it is often highly conceptual or theoretical, not geared to everyday, local problems. They will not be bored with Professor Lindstrom's book, however. For this is a "textbook in sociology" which, while built on a firm theoretical foundation, provides a vital, almost journalistic account of the immediate problems of rural life in America and the measures being taken or proposed to meet them.

The theoretical core of *American Rural Life* is essentially that, with industrialization, the quality of rural culture is deteriorating. This creates a serious problem for the whole nation, since, with present urban and rural birth rates, the cities depend for their survival on migration of young people from the country. To preserve the best social values in rural areas, it is argued that the agricultural rôle of the family-size farm must be strengthened; on this economic base, improvements must be made in rural education, health services, recreation, social security, and all types of organized group activity.

In offering this program of action, Prof. Lindstrom presents abundant data on the current status and trends of the rural population, agricultural economics, and rural institutions (the family, church, school, etc.). The complex variety of governmental programs developed to support the farm economy are succinctly described, as well as the efforts of farmers' organizations and other voluntary groups. Prof. Lindstrom maintains strict objectivity in his diagnostic accounts, but his recommendations for treatment reflect a particular point of view. It is the view of the main body of liberal students of American agriculture today.

There is a chapter devoted to health in rural areas which, despite a number of inaccuracies, gives a useful sketch of current problems. It is perhaps imbalanced in its recommendations, devoting relatively excessive attention to school health services, for example, while making only passing mention of insurance against medical service costs. Throughout the volume references to the health implications of various economic, demographic, or social situations are frequent and incisive.

While designed primarily for students of rural sociology, this study can be a valuable source book for all public health workers in rural areas. It would be hard to find a volume which could so well orient the newcomer in rural health service on the total setting of rural life in which he works. As health agencies have awakened to the importance of gaining the widest community understanding of public health programs, books of this type become as indispensable as manuals of communicable disease control. MILTON I. ROEMER

Foods, Production, Marketing, Consumption — *By Jean J. Stewart and Alice L. Edwards. (2nd ed.) New York: Prentice-Hall, Inc.,* 1948. 490 pp. Price, $6.35.

In the preface to the first edition which was published in 1938, three reasons for writing a book of this type were given: to lead individuals to reach proper conclusions on food problems, to discuss controversial problems as far as a book of this kind can do so, and to point out where information on food topics may be obtained. How much such information is needed today by

many homemakers who are posing as authorities in the food field! The book is in three parts with thirteen appendices. Part one concerns the need for food by individuals and groups; part two, foods, production, nutritive value, and buying; and part three, principles of cooking foods. In the appendices is a wealth of information relating to nutritive value of foods, adequate diets, cooking temperatures, and on a few other practical subjects.

In a few places the authors have shown lack of close familiarity with the subjects they discussed. Certified milk is said to be raw milk. Most of it today is pasteurized. In their discussion of canning of foods it is stated that heating or "processing" is for the purpose of sterlizing the food so that all organisms ,which cause spoilage may be destroyed. The implication in this statement is that they are destroyed if the food keeps, which is not the case. They speak of "oven sterilizing" when "oven processing" would be better, because the term "process" is the term applied to heating foods in canning. It was introduced when it became known that heating canned foods did not sterilize them. They speak of "sterilization of canned products" when even commercial canners cannot sterilize canned foods and have had to introduce the term "commercial sterilization." They state that thermophilic bacteria are *probably* responsible for flat-sour spoilage. These bacteria *are* the causes of it. Tomatoes are considered to be acid foods not requiring processing under pressure. Most of them probably are, but some species are too near the neutral point to be processed in boiling water. Home canned tomatoes have caused quite a few outbreaks of botulism. The organism causing botulism is called "bacillus botulinus" when the accepted name for many years has been *Clostridium botulinum*. The authors define evaporated milk as the partially dehydrated product prepared from whole or skimmed milk. The Standard of Identity for Evaporated Milk under the Food, Drug and Cosmetic Act of 1938 stipulates not less than 7.9 per cent of milk fat. Skimmed milk can be evaporated but it cannot be called "evaporated milk." By mentioning these points the reviewer does not wish to detract from the value of the book. They happen to be in his special field of interest. Some of the difficulty is due largely to the fact that the authors have tried to cover a large field in a book to be used by students.

F. W. TANNER

Enjoy Your Child—Ages 1, 2, and 3—Public Affairs Pamphlet No. 141 —*By James L. Hymes, Jr. New York: Public Affairs Committee, Inc.*, 1948. 32 pp. Price, $.20.

The author and the sponsoring committee of this relatively short but excellent pamphlet designed for parents of very young children deserve congratulation. The author has presented essential psychological facts of the child's early emotional development in language and form so clear, natural, vivid, and convincing that both the facts and his "helpful hints" of the management of the problems incident to the 1, 2, and 3 year old age should find ready acceptance. Acceptance of the facts and acting upon his hints should, in turn, contribute greatly to the happiness and understanding of all manner of parents in relation to the runabouts in the family and would, indeed, constitute the soundest basis for mutual democratic understanding between all ages and kinds of people. The author has artfully combined serious fact with pleasant humor, and a dozen drawings by Scheib amusingly illustrate the sense and spirit of the text.

In his selection of characteristic behavior of 1, 2, and 3 year olds, Mr. Hymes has described apparently differ-

ent problems of different ages, but he skillfully develops the fact that these various reactions are all basically responses of healthy growth and can all best be solved by a "basically healthy attitude" of the parents. In addition, he successfully groups the main behavior characteristics of the 1 to 3 year olds under two main subjects (goals), independence and security. This bi-polar classification is remarkable not only for its apparent simplicity but because it really helps to clarify the reasons for the particularly contrary nature of the toddler.

Most noteworthy of all in this exemplary presentation is the author's introductory address to the parents as experts. His implicit trust in them as already experienced observers courts their confidence for his guiding suggestions. The encouragement of such sensitive and pedagogical trust in the expertness of parental observation will go a long way in fostering the recommended parental attitude of "unconditional love."

EDITH B. JACKSON

Essentials of Fevers—*By Gerald E. Breen. (2nd ed.) Baltimore: Williams & Wilkins,* 1948. 351 pp. Price, $4.50.

This book is a pocket-size edition written for medical students and young practitioners to acquaint them with the essentials of the commoner communicable diseases or fevers. It is surprising to find so much information in so small a volume. In addition to consideration of 21 communicable diseases, there are four introductory chapters, a section on physical diagnosis, and a terminal chapter of miscellany, including diagnostic errors. Although the material is largely clinical, preventive and public health aspects of the various infections are also considered.

The style is lucid, pleasantly readable, humorous, and interspersed with trite remarks, the latter pointing up the text. However, inherent in the compend is the danger of generalities and on this score the work suffers. It also seems unfortunate to this reviewer that there is no bibliography and that the index is so cursory. Charts and tables are generously interspersed in the text and there are 16 colored drawings, which are inferior to colored plates, but in this instance are distinctive because they illustrate what is intended very well and, furthermore, are the handiwork of the author. The book cannot be recommended as a communicable disease text, but it is packed with practical, usable information, which should be of value to the groups the author wishes to reach.

FRANKLIN H. TOP

A SELECTED PUBLIC HEALTH BIBLIOGRAPHY WITH ANNOTATIONS

RAYMOND S. PATTERSON, PH.D.

! ! !—Veterans of our own Association's annual dinners will find enlivening this story of our British counterpart's comparable function. The Society's president toasted the King (duly honored). Then the Minister of Health toasted the Society. Then the President toasted the Minister. Then a county-borough M.O.H. proposed a toast to the guests. And two guests offered what I assume might be called countertoasts. Seems like a fine old custom, doesn't it?

ANON. The Annual Dinner. Pub. Health. 52, 1:13 (Oct.), 1948.

Supportive Evidence—In a well controlled study, the British research council's investigation finds streptomycin therapy effective in doing what the patient's tissues alone cannot do against acute progressive tuberculosis.

ANON. Streptomycin Treatment of Pulmonary Tuberculosis. Brit. M. J. 4582:769 (Oct. 30), 1948.

Obtaining Sickness Data—This is pretty obvious, but it needs to be said—and read. The urgency of the tasks facing social scientists, has led them to "get on with the job" instead of developing and testing surveying technics. Sound research in morbidity survey methods is loudly called for, says this British scientist.

BRANSBY, E. R. Some Aspects of Morbidity Surveys. Brit. M. J. 4579:678 (Oct. 6), 1948.

Rattus rattus norvegicus — Alberta, it is reported, is rat-free and Albertans propose that it shall remain the only extensive rat-free area in America. It isn't altitude or climate or vegetation that keeps the province rat-free: it is determination. Perhaps you'll want to read about this unique manifestation of common intention.

BROWN, J. H. Alberta: The Only Rat-Free Province in Canada. Canad. Pub. Health J. 39, 9:367 (Sept.), 1948.

Preliminary Report — Penicillin taken by mouth immediately after presumed exposure to gonorrhea proved highly effective in this controlled Navy study. This might be called making the world safe for indecency.

EAGLE, H., *et al.* Prevention of Gonorrhea with Penicillin Tablets. Pub. Health Rep. 63, 44:1411 (Oct. 29), 1948.

Your Attention, Please — There really *is* something new under the sun—at least new to these rheumy eyes. For ten years a doctor has been urging that babies be fed from the cup from birth. (Premies, too, are included.) He claims several advantages which you will have to go to the original article to learn about.

FREDEEN, R. C. Cup Feeding of Newborn Infants. Pediatrics. 2, 5:544 (Nov.), 1948.

Tab Socks V. D.—Case histories of venereal patients printed week-by-week in a Columbus tabloid increased the paper's circulation satisfactorily and brought in plenty of customers for the rapid treatment center. The newspaper received a thousand requests for "literature."

FREEBLE, C. R., and ROBINSON, A. The Tabloid Newspaper as a Medium of Mass Public Venereal Disease Education. J. Ven. Dis. Inform. 29, 10:307 (Oct.), 1948.

Thought for the Month—It is not only the individual who can be perverted by information beyond his capability of absorption; the community, too, can react in a bizarre manner to an instinctive urge or some new fashion of thought. History abounds, the writer comments, in examples of psychic contagion. Isn't "psychic contagion" a nice phrase?

GRANT, J. The Stigma—A Problem of Social Medicine. J. Roy. San. Inst. 68, 6:593 (Nov.), 1948.

"Tribute to the Machine Age"—If you'd like a good, comfortable chuckle, hunt out this short item written by a witty sanitarian. Incidentally it will set you to wondering, a bit *un*comfortably, about the possibilities of such contraptions (see title below) in your own bailiwick.

HERRIN, W. J., JR. A Sanitarian Views a Doughnut Machine. The Sanitarian. 11, 2:58 (Sept.-Oct.), 1948.

Inverse—Over a twenty year span between community health surveys, the relationships of economic status and chronic disease were looked into. Families going downhill economically had

twice the illness rate of those families whose fortunes were looking up. Which was cause and which was effect are discussed.

LAWRENCE, P. S. Chronic Illness and Socio-Economic Status. Pub. Health Rep. 63, 47: 1507 (Nov. 19), 1948.

Wearying of Well-Doing — An effort to improve the nutrition of a group of Canadian school children through education of both parents and youngsters produced some results the first year, but "improvement in health was not continued during the second year and some deterioration was observed." Such honest reporting is as commendable as it is unusual.

SHAVER, E. M., *et al.* Nutritional Aspects of the Hartman Jones Memorial School Health Study. Canad. Pub. Health J. 39, 10:395 (Oct.), 1948.

New Knowledge: New Responsibilities—Though quarantine has been divested of much of the mumbo-jumbo which surrounded it, carefully supervised isolation procedures have lost none of their usefulness. If public health nurses are given more discretion now-a-days, they become all the more responsible. Better nursing is called for.

SHETLAND, M. Communicable Disease Nursing—1948. Pub. Health Nurs. 40, 11:543 (Nov.), 1948.

Target To Shoot at—Can you mold your words into bullets? This is the way Stokes does it. "Sex is now a physical property, like a car: a lure hung with furs, a smell with a suggestive name, something with a three way stretch and seductive points—to be acquired, used, traded in for a newer model or rented for the occasion or the night like tie and tails." Read the whole paper.

STOKES, J. H. The Modern Venereal Disease Problem and Its Sex Education Front. J. Ven. Dis. Inform. 29, 10:296 (Oct.), 1948.

Why TB Patients Leave—In this discussion of measures to reduce the large numbers of patients who leave V A tuberculosis hospitals against advice, the word "health educator" does not seem to figure prominently. Better doctor-patient relationships are called for, and so are better social services to solve patients' problems. Health educators will suggest that they have a contribution to make to this worthy cause.

TOLLEN, W. B. Irregular Discharge. Pub. Health Rep. 63, 45:1441 (Nov. 5), 1948.

. . . And the Poor Get Sicker—Some of the breadth, and a lot of the limitations, of our understanding of the influences of social and environmental factors upon our national health are revealed in these four excellent researches into variations in morbidity and mortality rates.

WIEHL, D. G. Mortality and Socio-Environmental Factors, (and) DOWNES, J. Social and Environmental Factors in Illness, (and) BRITTEN, R. H. Physical Impairments and Socio-Environmental Factors, (and) COLLINS, S. D. Sickness Among Industrial Employees in Baltimore in Relation to Weekly Hours of Work, 1941–1943. Milbank Quart. 26, 4:335 (Oct.), 1948.

Pollyanna, Pass This By—Grim is the word for the chance of survival into middle age for children with rheumatic fever. Only half live beyond age 40. The likelihood of the affected child to reach each of the decade markers up to 40 are worked out with unrelenting mathematical exactitude.

WILSON, M. G., and LUBSCHEZ, R. Longevity in Rheumatic Fever. J.A.M.A. 138, 11:794 (Nov. 13), 1948.

Lighting Up the Great Darkness—Federal funds to the tune of 14 millions, many more millions of state appropriations, "Substantial aid" from the A. C. S. are ear-marked for cancer control—but more is needed if the disease is to be stopped. Above all there must be unification of effort, says this writer.

ZIMAND, S. Public Health Aspects of Cancer Control. Milbank Quart. 26, 4:430 (Oct.), 1948.

BOOKS RECEIVED

Listing in this column acknowledges the receipt of books and our appreciation to the senders. Space and the interests of readers will permit review of some, but not all, of the books listed.

AMERICAN STANDARD PRACTICE FOR SCHOOL LIGHTING. Illuminating Engineering Society and American Institute of Architects. New York: Illuminating Engineering Society, 1948. 79 pp. Price, $.50.

CHILDHOOD MORTALITY FROM RHEUMATIC FEVER AND HEART DISEASE. George Wolff. Washington, D. C.: Federal Security Agency, Social Security Administration, Children's Bureau. Publication 322, 1948. 63 pp. Price, $.25.

DANGER! CURVES AHEAD! Mirian Lincoln, M.D. New York: Macmillan, 1948. 138 pp. Price, $2.50.

DEMENTIA PRAECOX. Leopold Bellak, Foreword by Winfred Overholser. New York: Grune & Stratton, 1948. 448 pp. Price, $10.00.

FINDINGS AND RECOMMENDATIONS OF THE PHARMACEUTICAL SURVEY 1948. Washington, D. C.: American Council on Education, 1948. 49 pp. Price, $1.00.

GERMICIDES, ANTISEPTICS AND DISINFECTANTS FOR HOSPITAL USE. Dewey H. Palmer. New York: Hospital Bureau of Standards and Supplies, 1948. 15 pp. Price, $1.00.

A HANDBOOK OF RECORDED NOTATIONS—VOCATIONAL NURSING. For Use With the Text "Vocational Nursing for Home, School, and Hospital." Alice L. Price. St. Louis: C. V. Mosby, 1948. 163 pp. Price, $2.00.

HANDBOOK OF DENTAL PRACTICE. Edited by Louis I. Grossman, Philadelphia: J. B. Lippincott, 1948. 417 pp. Price, $12.00.

THE LITERATURE ON STREPTOMYCIN. Selman A. Waksman. New Brunswick, N. J.: Rutgers University Press, 1948. 88 pp. Price, $3.00.

MINERAL NUTRITION OF PLANTS AND ANIMALS. Frank A. Gilbert. Norman, Okla.: University of Oklahoma Press, 1948. 117 pp. Price, $2.75.

THE NATIONAL CONFERENCE ON UNDERGRADUATE PROFESSIONAL PREPARATION IN PHYSICAL EDUCATION, HEALTH EDUCATION AND RECREATION. Held at Jackson's Mill, Weston, W. Va., May 1948. Chicago, Ill.: Athletic Institute, 1948. 40 pp. Price, $1.00.

OVERWEIGHT IS CURABLE. Wilfred Dorfman and Doris Johnson. New York: Macmillan, 1948. 160 pp. Price, $2.75.

PATHOLOGY. W. A. Anderson (Edited by). St. Louis: C. V. Mosby, 1948. 1183 illus. 1453 pp. Price, $15.00.

PREMATURE INFANTS. A Manual for Physicians. Ethel C. Dunham. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office. Children's Bureau Publication No. 325, 1948. 387 pp. Price, $1.25.

A PROGRAM FOR THE NURSING PROFESSION. Committee on the Function of Nursing. New York: Macmillan, 1948. 108 pp. Price, $2.00.

SELECTED WORKS OF HENRY CLAPP SHERMAN. New York: Macmillan, 1948. 1056 pp. Price, $5.00.

THE SKIN DISEASES. James Marshall. New York: Cambridge University Press, Macmillan, 1948. 363 pp. Price, $7.50.

STATISTICAL ABSTRACT OF THE UNITED STATES 1948. Compiled under the Supervision of Morris H. Hansen. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office, 1948. 1018 pp. Price, $2.75.

STUDIES IN PSYCHOSOMATIC MEDICINE. Edited by Franz Alexander and Thomas Morton French. New York: Ronald Press, 1948. 568 pp. Price, $7.50.

VITAMINAS Y SANGRE. Gustavo Pittaluga. Havana, Cuba: Cultural, S. A., 1948. 712 pp.

VOCATIONAL NURSING FOR HOME, SCHOOL AND HOSPITAL. Alice L. Price. St. Louis: C. V. Mosby, 1948. 344 pp. Price, $4.00.

THE FOLLOWING REPORTS HAVE BEEN RECEIVED

DETROIT DEPARTMENT OF HEALTH ANNUAL REPORT 1947. Detroit, Mich.: City Health Department. 70 pp.

DEWITT-PIATT COUNTY HEALTH UNIT. Semi-annual Report January through June 1948. Clinton, Ill.: DeWitt-Piatt County Health Unit, 1948. 11 pp.

DULUTH MINNESOTA HEALTH DEPARTMENT. Biennial Report 1946–1947 Supplement to Biennial Report. Duluth, Minnesota: City Health Department.

DURBAN, SOUTH AFRICA. Annual Report of City Medical Officer of Health Year Ending June 30, 1947. Durban: Hayne & Gibson (Pty) Ltd. 48 pp.

THE EYE-BANK FOR SIGHT RESTORATION, INC. Third Annual Report. New York: Eye-Bank for Restoration, 1948. 19 pp.

HOSPITAL COUNCIL OF GREATER NEW YORK. 10th Annual Report 1947–1948. New York: Hospital Council of Greater New York. 28 pp.

MACON COUNTY TUBERCULOSIS SANATORIUM. 25th Annual Report for the Year Ending May 31, 1948. Decatur, Ill.: Macon County Tuberculosis Sanatorium, 1948. 31 pp.

MADISON, WISCONSIN. Annual Report 1947 of the City Department of Public Health. 38 pp.

NATIONAL TUBERCULOSIS ASSOCIATION. Annual Report April 1, 1947 to March 31, 1948. New York: N.T.A., 1948. 63 pp.

NEW ZEALAND, AUSTRALIA. Annual Report of the Department of Health 1948. Wellington, Australia: Government Printer, 1948. 108 pp.

THE REGIONAL HOSPITAL PLAN. The Second Year's Experience 1947. Rochester, N. Y.: The Council of Rochester Regional Hospitals. 75 pp.

REPORT ON THE OPERATION OF KANSAS JOINT MERIT SYSTEM. July 1947 through June 1948. Topeka, Kansas: Kansas Joint Merit System Council.

SACRAMENTO COUNTY YOLO COUNTY MOSQUITO ABATEMENT DISTRICT. Annual Report 1947–1948. Sacramento, Calif.: Court House Room 126-D. 24 pp.

WILL COUNTY HEALTH DEPARTMENT, SIXTH ANNUAL REPORT July 1, 1947–June 30, 1948. Joliet, Illinois: Will County Health Department.

PRELIMINARY ANNUAL REPORT VITAL STATISTICS OF CANADA—1947 TENTATIVE FIGURES. Ottawa, Canada: Dominion Bureau of Statistics, 1948. 47 pp. Price, $.25.

PRESIDENT'S COMMITTEE ON NATIONAL EMPLOY THE PHYSICALLY HANDICAPPED WEEK. Employment of the Physically Handicapped Selected References. Compiled by Helen M. Steele and Lola A. Wyckoff. Washington, D. C.: U. S. Department of Labor, 1948. 68 pp.

PUBLIC HEALTH RELATIONS, COMMITTEE ON REPORT OF ACTIVITIES FOR THE YEAR 1947. New York: New York Academy of Medicine. 56 pp.

REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1947. City and County of Bristol, England. Bristol 6, England: Department of Public Health. 40 pp.

SECOND INTERIM REPORT CONCERNING CARE OF THE CHRONICALLY ILL IN ILLINOIS. June 1947. Springfield, Ill. Commission on the Care of Chronically Ill Persons, 1948. 279 pp.

STATE OF CONNECTICUT. 61st Report of the State Department of Health for the Year Ended June 1946. Hartford, Conn.: State Department of Health, 1946. 326 pp.

Public Health in Foreign Periodicals

GEORGE ROSEN, M.D., PH.D.

OBSERVATION of current medical and public health literature from Latin American countries clearly reveals the considerable efforts that are being made to deal with problems of health. Demographic questions, infant mortality, tuberculosis, malaria, venereal disease, nutrition, parasitic infestations —all are being studied and are receiving attention. In different countries these tendencies are evident in greater or lesser degree. Brazil affords an interesting illustration in point.

BRAZILIAN DEMOGRAPHY AND VITAL STATISTICS

Like the United States and other countries of the Americas, Brazil passed through a colonial stage, the influence of which is still evident. The meaning of the colonial period has been clearly presented in two works that are indispensable for an understanding of Brazilian development. These are *Casa-Grande & Senzala* by Gilberto Freyre [1] and *Os Sertões* by Euclides da Cunha.[2] Both authors lay emphasis on the heterogeneity of the Brazilian population, and indicate the role of immigration in forming the Brazilian of today. The significance of migration in the growth of Brazil's population is studied in detail in a recent monograph by Giorgio Mortara.[3] At the very outset,

Mortara points out that demographic studies of American populations have been considerably handicapped by deficiencies of birth and death registration, and by the absence or irregularity of population censuses in many countries of the Western Hemisphere. Even in the United States where censuses have been taken since 1790, the registration of births and deaths has attained a satisfactory degree of completeness only very recently. In other American countries, among them Brazil, this goal is still far off.[4] Nevertheless, skillful utilization of available statistical data permits a good approximation to the missing information, and thus a reconstruction of population development.

Mortara ascribes the total increase in American populations to two different growth factors, one, excess of immigration over emigration, and, two, excess of births over deaths. He then proceeds to study population growth in Brazil during the last hundred years, and presents a brief account of the five Brazilian population censuses (1872, 1890, 1900, 1920, 1940). From a comparative analysis of the results of these censuses it can be shown that there was some understatement of the total population in the 1900 census, and a relatively greater overstatement in the 1920 census.

A special problem in the interpretation and correction of census data is considered in a critical analysis of the declarations of old age, particularly of declarations by centenarians. Ignorance, amnesia, and senile vanity all tend to raise declarations of extremely advanced age to almost incredible proportions. In countries where birth registration is long established and well organized, such errors are not so frequent and can be corrected by comparison of declared ages with information in birth registers. However, where such information is lacking, as in Brazil, control is virtually an impossibility. By comparative analysis and by applying survival rates calculated from Brazilian life tables, Mortara determined approximately the true number of centenarians in 1940. Comparison of this estimate with the data obtained in the 1940 census showed that untrue declarations of extremely advanced age were still frequent, although relatively less than in earlier censuses.

Brazilian public health authorities are aware of the deficiencies in their vital statistics. Provisional data in a survey undertaken by the Federal Biostatistics Service show that in 1945 the percentages of non-registered live births ranged from 64.7 (Teresina) to 21.6 (Curitiba).[5] Similarly, deaths are not completely registered. In 1943, 1944, and 1945 respectively, 1.8 per cent, 1.46 per cent, and 1.4 per cent of deaths reported to the Federal Biostatistics Service were not recorded by the registrars. Far worse, however, is the situation regarding stillbirths (and abortions), of which 68 per cent, 67.2 per cent, and 63.3 per cent known in the Federal District in 1943, 1944, and 1945 respectively were not registered.

In order to obtain more complete reporting the Serviço Especial de Saúde Pública decided to carry out a systematic investigation in areas which it covers in the Amazon and Rio Doce regions. For live births additional information is to be collected from baptisms and similar religious acts, as well as from maternity institutions, visiting nurses, child hygiene service, dispensaries and home immunizations. Additional information on deaths and stillbirths is to be supplemented by data from other sources, especially cemeteries serving the area under control.

WATER SUPPLY IN VARIOUS REGIONS OF BRAZIL

The problem of water supply and sewerage is also of considerable concern to Brazilian public health workers.

Gonçalves Ferreira points out that the installation of good water supply and sewerage systems is of primary importance in improving the health and well-being of the people of Brazil.[6] Statistics show that installing such services, as well as other public health measures, in Brazilian cities can save annually the lives of 15,000 people who now die of typhoid fever, dysentery and other enteric diseases. Examination of typhoid fever death rates in the Federal District for the last two 5 year periods reveals sanitary conditions that are not flattering to the capital of Brazil. The sewerage system is still poor, with over 50 per cent of the houses not connected to the system, and without privies of any kind. Furthermore, the water supply system is also not without defects. In considerable degree, unsatisfactory health conditions in Rio de Janeiro, of which frequent outbreaks of typhoid fever offer eloquent testimony, are due to the factors described.

Ferreira goes on to say that water cannot be considered of good quality, even though obtained from well protected springs, if it does not undergo any treatment. In the Rio Doce Valley, where water from the subsoil is generally unsuited for drinking purposes unless treated, the cost of treatment, including filtration system and reservoirs, has been calculated at Cr $250 per capita for the entire system. In the Amazon Valley the Serviço Especial de Saúde Pública has successfully shown that dug wells of large diameter are good, practical, and economical sources of drinking water for the majority of the urban communities in that area. It has been estimated that complete cost of installation, including wells, elevated reservoir, and distribution system, would be Cr $100 per person.

To remedy existing conditions, Ferreira proposes that every state in Brazil, including the Federal District, should have a Division of Sanitary Engineering in the Public Health Department. This division should be responsible for studying, supervising, and giving advice on water purification, sewage treatment, garbage disposal, insect and rodent control, food sanitation, disposal of industrial wastes, and sanitation of swimming pools.

In part, projects of this kind are being carried out in various parts of Brazil. These are connected with a water supply study recently undertaken by the Sanitary Engineering Section of the National Department of Health. This study envisages two stages. The first phase, which is now being carried out, is concerned with ascertaining the water needs of the Brazilian population, and the relations of these needs to financial resources in the different localities. The second phase, revolves around the assembling of data for the solution of specific problems. A full discussion of this water supply study as well as of other sanitary engineering activities in Brazil is available in a recent paper by Carvalho.[7] Other reports that may be consulted in this connection are those by Bovée,[8] Hummel,[9] and Miranda and coworkers.[10]

SCHISTOSOMA MANSONI IN BRAZIL

Among the public health and medical problems of Brazil those arising out of parasitic infestation occupy a prominent place. In a recently published monograph, Meira draws particular attention to one of these, schistosomiasis due to *S. mansoni*.[11] The author considers schistosomiasis an important public health problem and emphasizes its social, economic, and medical significance. Review of the available data indicates that published surveys do not give a true picture of the extent of the infection. There is substantial evidence that schistosomiasis mansoni is intensely endemic in extensive areas of Brazil. Surveys have been conducted by means of stool examinations, as well as through

pathological examinations, including liver biopsies. The incidence has been estimated at 6.2 per cent for the country as a whole. This figure would correspond to 2,808,600 individuals with schistosomiasis. For the Northern States and Minas Gerais only, which are known to be important endemic foci, Meira found the incidence to be 8.65 per cent and estimated that the approximate number of infected people was 1,817,892 in that area. He regards the true prevalence as exceeding these figures.

As regards the prevalence of schistosomiasis, Sergipe and Alagoas occupy first and second place, while the states of Bahia, Pernambuco, and Minas Gerais are third, fourth and fifth respectively. Infection with *S. mansoni* is known to occur all over Brazil, but except for a few areas the data are fragmentary and unrepresentative. Finally, Meira emphasizes the incomplete knowledge concerning the geographical distribution of the intermediate hosts of *S. mansoni*. For all those interested in this subject, this monograph has a bibliography which includes almost all the papers published in Brazil on schistosomiasis.

TUBERCULOSIS IN BRAZIL

Another problem of considerable importance is tuberculosis. This problem is being attacked from various points of view. Considerable attention is being given to statistical variations in mortality. For example, Machado reports on the tuberculosis mortality in various municipalities of Rio Grande do Sul during the period 1941–1943.[12] He found that the rate for all forms of tuberculosis was 97 per 100,000 population. There were wide variations, however, ranging from 5 to 411 per 100,000.

In the same state (Rio Grande do Sul), Costa studied the tuberculosis death rate in relation to socio-economic conditions.[13] He compared three regions with different economic characters, one predominantly pastoral, the second characterized by small industry and agriculture, and the third area by agriculture and cattle raising. Comparison of the death rates for the three zones showed a high rate for the predominantly pastoral, frontier region as compared to the other two.

Neves points to the necessity for employing different techniques when carrying on mass surveys of urban and rural populations.[14] In the Latin American countries the tuberculosis problem has a dual aspect, rural and urban. Mass x-ray surveys are particularly indicated for urban working class populations over the age of 15. On the other hand tuberculin testing is important for rural inhabitants up to the age of 25, and among urban individuals from 12 to 15.

The significance of the tuberculosis problem in Brazil may be seen again from Cardoso's study of the disease in Aracaju, capital of Sergipe.[15] In this city tuberculosis has assumed epidemic aspects, and accounts for 10 per cent of the total mortality. The greatest mortality occurs in the 21 to 40 age group, and also in males. Domestic servants and workers provide the bulk of those who are attacked by the disease. Tuberculin testing of individuals in the 9 to 14 age group showed 52.2 per cent positive. Cardoso emphasizes that the tuberculosis control program must be based on the epidemiology of the disease, taking as its basis the triad: host, infecting organism, social environment. No control of tuberculosis is possible without some improvement of housing and nutrition.

De Paula and Santos report their experiences with tuberculosis in pregnancy.[16] During a 2 year period they treated 43 pregnant women with tuberculosis. After analysis of the obstetrical condition of each patient and the state

of the pulmonary disease, they reached the conclusion that the way to care for these patients was to treat the tuberculosis and to observe the pregnancy. De Paula and Santos advise chest x-ray surveys for pregnant women, establishment of separate maternity sections for pregnant women with tuberculosis, and BCG vaccination of the new-born babies. Finally, they feel that abortion is justified only in exceptional cases.

De Assis also recommends BCG vaccination for the prevention of tuberculosis among infants in Rio de Janeiro.[17] He points out the advantages of oral administration. After discussing the Brazilian work on BCG he arrives at the conclusion that BCG is responsible for a reduction of 50 per cent in tuberculosis morbidity, and of about 80 per cent in tuberculosis mortality. De Assis then discusses the problem of revaccination with his method, which consists in the oral administration of six monthly doses of 100 milligrams each of BCG. He presents the results of his experiences with 61 children, each one living with at least one tuberculous person. The incidence of primary infection in this group was 11.45 per cent, the mortality zero.

REFERENCES

1. Freyre, Gilberto. *The Masters and the Slaves (Casa-Grande & Senzala)*. New York: Knopf, 1946.
2. da Cunha, Euclides. *Rebellion in the Backlands (Os Sertoes)*. Chicago: University of Chicago Press, 1944.
3. Mortara, Giorgio. *Pesquisas sôbre populaçoes americanas* [Estudos Brasileiros de Demografia, Monografia No. 31]. Rio de Janeiro, 1947.
4. One facet of this problem is discussed in Michel J. Saade: Verificação estatistica do grau de deficiência do registro de nascimentos. *Revista do Serviço Especial de Saúde Pública*, 1:449–467, 1947–48.
5. Scorzelli, Achilles, Jr. Coleta de dados vitais em pequenas localidades. *Revista do Serviço Especial de Saúde Pública*, 1:397–432, 1947–48.
6. Gonçalves Ferreira, Antonio Barreto. O problema da agua potavel em varias regioes do Brasil. *Revista do Serviço Especial de Saúde Pública*, 1:997–1057, 1947–48.
7. de Carvalho, Mario B. Atividades de Engenharia Sanitária no Brasil. *Organo Oficial de la Asociación Interamericana de Ingenieria Sanitaria*, 1:215–241, 1947–48.
8. Bovée, Clifton. Abastecimento dágua no Vale do Rio Doce. *Revista do Serviço Especial do Saúde Pública*, 1:469–504, 1947–48.
9. Hummel, John L. Projeto de abastecimento dágua por captação subterrânea. *Revista do Servico Especial de Saúde Pública*, 1:777–810, 1947–48.
10. Miranda, Guilherme, Puget, Jucundino, Messias, Guilherme, and Andrade, João L. D. Silva e Mario. Abastecimento dágua potavel em localidades da Amazônia. *Revista do Serviço Especial de Saúde Pública*, 1:1009–1038, 1947–48.
11. Meira, João Alves. Esquistosomiase mansoni. Subsidio ao estudo de sua incidência e distribuicão geográfica no Brasil-Lista bibliográfica sôbre a esquistosomose mansoni (doenca de Manson-Pirajá da Silva). *Arquivos da Faculdade de Higiene e Saúde Pública*, da Universidad de São Paulo, 1:5–146, 1947.
12. Machado, Leonidas Soares. Óbitos por tuberculose (tôdas as formas) nos municipios do Rio Grande do Sul, no triêno 1941–1943. *Revista Brasileira de Tuberculose*, 16:353–364, 1947.
13. Costa, Bonifácio. Latifundio e tuberculose (aspectos de visinhança). *Revista Brasileira de Tuberculose*, 16:57–68, 1948.
14. Neves, Jayme Dos Santos. Variação da técnica censitária de acôrdo com a coletividade urbana ou rural. *Clinica Tisiologica*, 3:61–70, 1948.
15. Cardoso, Walter. Aspectos da tuberculose em Aracaju. *O Hospital*, 33:83–115, 1948.
16. de Paula, Aloysio, and Santos, Roberto G. Simonard. Tuberculose e gravidez. *Revista Médica Municipal*, 11:125–158, 1947.
17. de Assis, Arlindo. Prevenção da tuberculose infantil no Rio de Janeiro por meio da vacinação oral com B.C.G. *Revista Brasileira de Tuberculose*, 16: 145–166, 1947–48.

New Year's Message from the President of the American Public Health Association

I welcome this opportunity to extend warm and cordial greetings to those who are devoting their lives to public health service.

As 1949 opens it must be gratifying to you as it is to me to realize that the public is recognizing its dependence on the public health professions more than ever before. Undoubtedly this places upon you and me a heavier obligation than we have previously carried for doing the job well. I like to think of the new resources we have in trained persons, in expanded programs, and more adequate money. We shall not be found wanting throughout the months of this year.

A generation ago Hermann M. Biggs pointed out that "Public health is purchasable and, within certain limits, communities may determine their own death rates." That is an appealing challenge. We should help the public to accept the challenge, as a philosophy, and we must make sure that into that acceptance we are ready to put the organization and the personnel to achieve this happy end.

Such a philosophy puts a high premium on planning for the future so that the public may find us ready to meet our task, which is the promotion of health, the prevention of disease, and the prolongation of life.

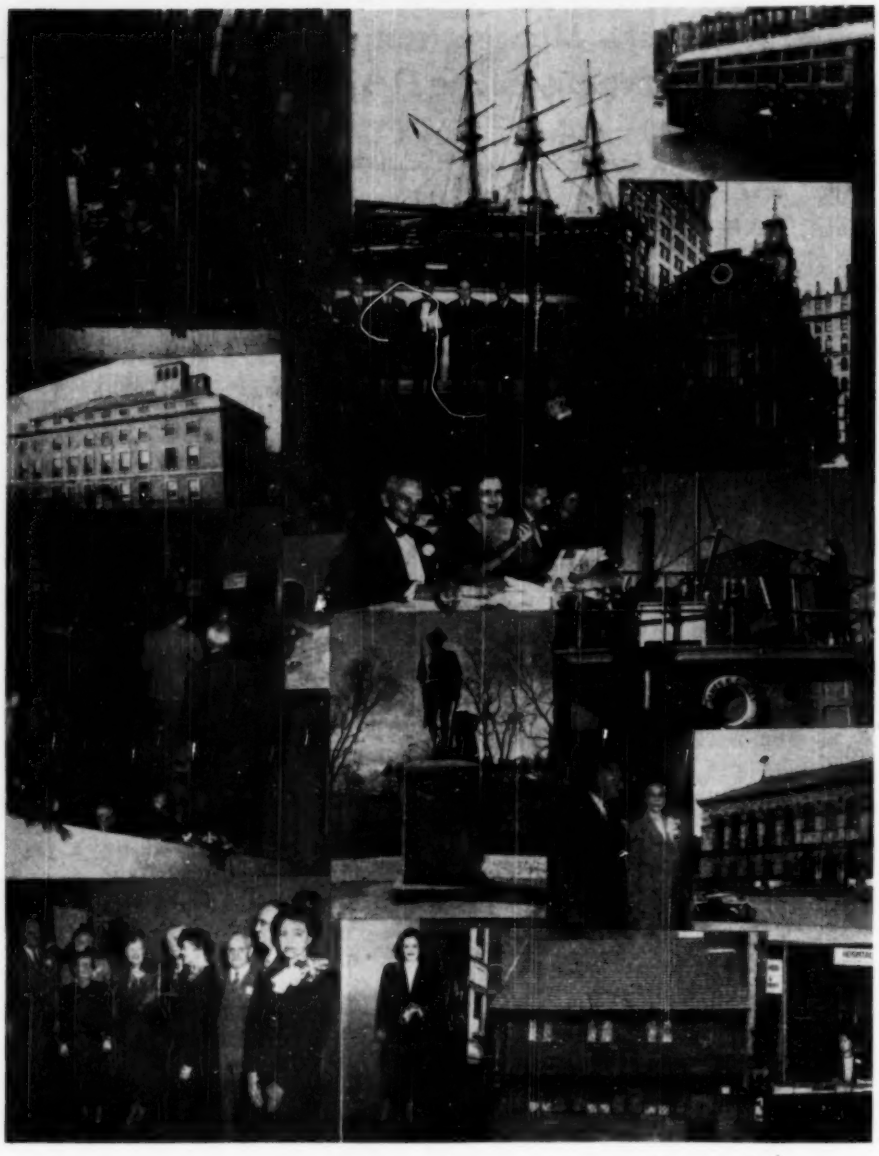
The Association has recently had a visitor from Germany who came with the express purpose of finding what the American Public Health Association represented. He asked many discerning questions, underlying all of which was his query, "How does it come that in North America the public health professions have organized themselves under auspices that include all branches of the professions and which over a period of years have exerted a profound influence on all aspects of the public health movement?" It would be understandable, he said, if the American Public Health Association were vested with legal authority. How does it happen that without a scintilla of authority the Association has been able, for example, to publish the definitive report on communicable disease control for more than three decades, which has periodically been approved by the United States Public Health Service and more recently by other governments?

These questions have led some of us to look at the American Public Health Association from a fresh viewpoint. We are grateful for the privileges we have of serving the public through this voluntary association of ours, and we venture to hope that through 1949, as in future years, we may continue to be strong and free.

Charles F. Wilinsky

President

Photographic Spotlights of



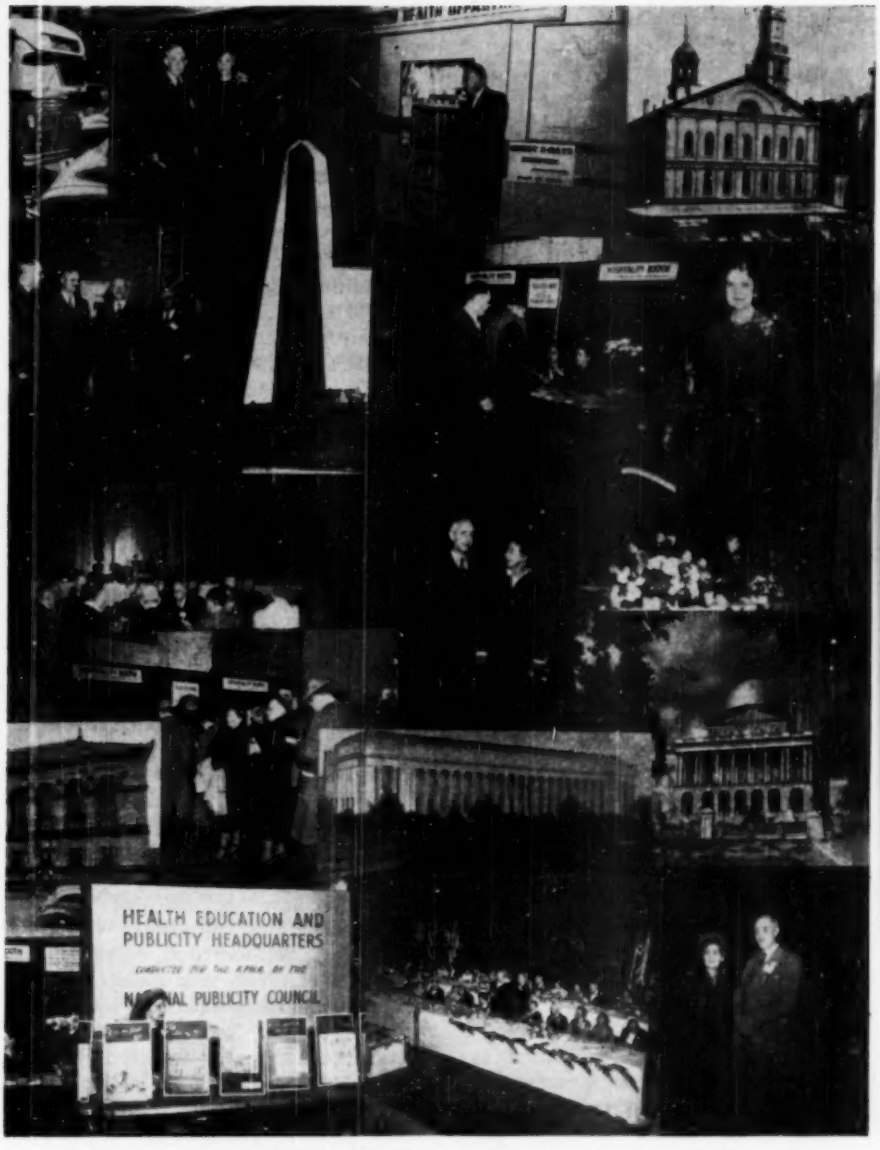
Starting at the top left hand corner and proceeding across the pages, each row always from left to right—

Row 1: (1) Registration, (2) U. S. Frigate "Constitution"—"Old Ironsides," (3) Chartered bus for sight-seeing trip, (4) Gen. and Mrs. James S. Simmons, (5) Boston Health Department Exhibit with Dr. John H. Cauley and Dr. Carl Buck, (6) Faneuil Hall.

Row 2: (1) Head table at Governor's Luncheon on Tuesday, (2) Speakers at Lemuel Shattuck Lecture, (3) Old State House, (4) Governor's Luncheon Group, Dr. Atwater, Dr. Getting, Lt. Gov. Coolidge, and Dr. Wilinsky, (5) Bunker Hill Monument, (6) Hospitality Booth showing Miss Margaret Tracy, and Mrs. Elizabeth Caso, (7) Dr. Martha Eliot receiving Lasker Award.

Row 3: (1) Whittier Street Health Unit, (2) Annual Banquet showing Dr. Wilinsky, Mrs. Lasker, Dr. Conant, and Dr. Eliot, (3) Trip to Long Island Hospital aboard the "James M. Curley," (4) Head Table at Mayor's Luncheon on Monday, (5) Dr. and Mrs. Abel Wolman, (6) Dr. Conant.

the Boston Annual Meeting



Row 4: (Odd row—one picture only) (1) Registration.

Row 5: (1) Dr. Eliot at Governor's Luncheon, (2) The Minute Man, Lexington, (3) Dr. and Mrs. John H. Cauley, (4) Boston Public Library, (5) Queue at Hospitality Booth, (6) Boston Museum of Fine Arts, (7) The State House.

Row 6: (1) Group at Mayor's Luncheon from left to right, Dr. Cauley, Mrs. Cauley, Mrs. Wilinsky, front of Mrs. Cauley, Mrs. Curley, Mayor Curley, Dr. Eliot, Dr. Wilinsky, Dr. Getting, and Mrs. Getting, (2) Mrs. Lasker, (3) Paul Revere House, (4) Hospitality Booth with Miss Margaret Tracy and Mrs. Caso, (5) Publicity Headquarters, (6) Head Table at the Annual Banquet, (7) Dr. and Mrs. Reginald M. Atwater.

ASSOCIATION NEWS

ACTION ON PROPOSED AMENDMENTS TO CONSTITUTION AND BY-LAWS, A.P.H.A.

The A.P.H.A. membership will be interested in the vote on the Constitutional Amendments proposed by the Committee on Constitution and By-Laws with the approval of the Governing Council and the Executive Board and published in the October issue of the *American Journal of Public Health* (page 1473).

Proposed Constitution Amendments Nos. 1 and 2 provided for the election of the ten elective members of the Governing Council annually by the members and Fellows instead of by Fellows only. The affirmative action of two-thirds of the Fellows voting at the Annual Meeting was required for the adoption of these amendments. The affirmative votes totaled 292, lacking 7 votes of the 299 required for adoption. There were 95 negative votes and Constitution Amendments 1 and 2 were correspondingly not approved.

Constitution Amendment No. 3 clarified the terms of newly elected councilors which begin with the first meeting of the New Governing Council held immediately after the Old Governing Council adjourns. This Amendment was adopted with 383 affirmative votes and 4 negative votes.

Constitution Amendment No. 4 provided for a mail vote by Fellows on amendments to the Constitution instead of restricting this important responsibility to those Fellows present and voting at an Annual Meeting. This Amendment received 370 affirmative votes and 16 negative.

Amendments 3 and 4 were declared adopted and effective with the close of the 76th Annual Meeting on November 12, 1948.

Certain amendments to the A.P.H.A. By-Laws were proposed to members of the Governing Council by the Committee on Constitution and By-Laws in compliance with the requirement of prior notice before amendments may be considered. The entire Constitution and By-Laws will be reprinted in its revised form in a forthcoming issue but in the meantime a brief summary is presented of the Governing Council actions on the seven amendments proposed to the By-Laws.

By-Laws Amendment No. 1 was a simple clarification of the rights of Honorary Fellows who retain all the privileges of Fellowship or membership under their former status. It was unanimously adopted.

By-Laws Amendment No. 2 was planned to implement proposed amendments Nos. 1 and 2 of the Constitution if they were passed. Under the circumstances By-Laws Amendment No. 2 was withdrawn. It is not now part of the By-Laws.

By-Laws Amendment No. 3 liberalizes a former policy of canceling dues of persons who have been affiliated for a long period. This amendment, which was adopted, provides dues exemption for persons who have been affiliated for thirty years and who have been retired, and it covers the forty year arrangement which previously abolished dues after forty years regardless of retirement, but which has not been previously carried in the By-Laws.

By-Laws Amendment No. 4 was adopted as an entirely new article providing for the election of elective members of the Governing Council *by mail* by Fellows only, instead of the existing procedure whereby only Fellows attend-

ing the Annual Meeting might vote for the elective councilors. This amendment sets up the necessary steps for a mail ballot but makes no change in the method of selecting Governing Council nominees nor the composition of the Nominating Committee. It is provided, however, that the President shall appoint the Tellers in advance of the Annual Meeting.

By-Laws Amendment No. 5 provides three year terms for the three representatives from the Health Officers Section to the Committee on Administrative Practice. Previously these had been elected annually. It was adopted.

By-Laws Amendment No. 6 clarifies the responsibilities of the Standing Committee on Research and Standards. It was adopted and the Committee is now responsible for initiating, conducting, promoting, coördinating and reviewing research and development of standards in the technical branches of public health.

By-Laws Amendment No. 7 modifies the routine for fixing the time of the Annual Meeting, committing this responsibility to the Executive Board where as a matter of fact it has been exercised for many years. It was adopted.

New By-Laws became effective as of November 12, 1948.

RESOLUTIONS

THE following Resolutions were unanimously adopted by the Association at the Seventy-sixth Annual Meeting in Boston, Mass., November 10, 1948:

1. APPRECIATION TO OFFICIALS AND GROUPS

RESOLVED that the American Public Health Association expresses its grateful appreciation to the Boston Committee and the agencies represented thereon for their gracious hospitality, and be it further

RESOLVED that the warm thanks of officers and members be extended to John H. Cauley, M.D., Chairman of the Boston Committee and his colleagues on the Committee for their many courtesies, generous contributions of time and energy, and their efficiency in making provisions for this meeting and in the conduct thereof.

2. THANKS TO THE AUDITORIUM AND HOTELS

RESOLVED that the American Public Health Association expresses its appreciation to the Mechanics Building, the Statler Hotel, and all other Boston hotels that opened their doors to us for their valuable assistance in the conduct of the Seventy-sixth Annual Meeting.

3. APPRECIATION TO THE PRESS AND RADIO

RESOLVED that the American Public Health Association acknowledges its indebtedness to the press and radio, national, state, and local, for excellent service in carrying to the people of America the important events of the Seventy-sixth Annual Meeting.

4. APPRECIATION TO EXHIBITORS

RESOLVED that the American Public Health Association expresses its grateful appreciation to those who have presented at its Seventy-sixth Annual Meeting the excellent exhibits, both scientific and technical, which are of such great interest and value to the public health profession.

5. IN MEMORIAM

RESOLVED that it is with a sense of irreparable loss that the American Public Health Association records, since its last Annual Meeting, the death of 66 Fellows and members, whose names constitute a part of this resolution.

Deceased Members and Fellows of the AMERICAN PUBLIC HEALTH ASSOCIATION—October, 1947, through October, 1948

NAME	ELECTED MEMBER	ELECTED FELLOW
Howard S. Allen, M.D., Woodbury, Conn.	1944	
James F. Arbuckle, White Plains, N. Y.	1946	
Richard S. Austin, M.D., Cincinnati, Ohio	1937	
Karl R. Bailey, M.D., Boston, Mass.	1946	
Philip E. Blackerby, M.D., Louisville, Ky.	1933	1945
Frederick Boerner, V.M.D., Drexel Hill, Pa.	1943	
Midian C. Bousfield, M.D., Chicago, Ill.	1931	1935
Joseph F. Bredeck, M.D., D.P.H., St. Louis, Mo.	1933	
W. M. Brien, M.D., Orange, N. J.	1935	
Elizabeth C. Brown, Columbia, Mo.	1938	1942
Harley A. Bunner, Atlanta, Ga.	1946	
Donald A. Campbell, M.D., Neosho, Mo.	1943	
Hyman M. Charm, Sc.D., New York, N. Y.	1937	
Jesse H. Crouch, M.D., Richmond, Va.	1925	1931
Joe Davis, Seattle, Wash.	1943	
Francis P. Denny, M.D., Brookline, Mass.	1901	1922, Charter Fellow
Mrs. Sigrid M. Dudley, Marinette, Wis.	1930	
Andrew G. DuMez, Ph.D., Baltimore, Md.	1919	
Joseph P. Franklin, M.D., Cumberland, Md.	1946	
Florence A. Gates, South Nyack, N. Y.	1946	
Omer R. Gillett, M.D., Colorado Springs, Colo.	1912	1922, Charter Fellow
Harold J. Halligan, M.D., Jersey City, N. J.	1946	
Samuel McC. Hamill, M.D., Philadelphia, Pa.	1922	1940
James H. Heald, Winston Salem, N. C.	1919	
Roberts A. Hearn, M.D., Battle Creek, Mich.	1943	
Julius A. Hene, M.D., New York, N. Y.	1940	
Elsie Hickey, Toronto, Ont., Canada	1944	
W. W. Hume, M.D., Beckley, W. Va.	1931	
A. W. Jones, St. Louis, Mo.	1925	1934
Stroud Jordan, Ph.D., New York, N. Y.	1944	
Mrs. Edna M. Kech, Harrisburg, Pa.	1940	1946
Sara Kerr, Buffalo, N. Y.	1935	
Conrad Kinyoun, Savannah, Ga.	1926	1933
Millard Knowlton, M.D., Hartford, Conn.	1915	1922, Charter Fellow
Thomas J. LeBlanc, Sc.D., Cincinnati, Ohio	1933	
David B. Lepper, M.D., Bluefield, W. Va.	1923	1927
Dwight M. Lewis, M.D., New Haven, Conn.	1907	1923, Charter Fellow
James W. Loughlin, M.D., New Castle, Me.	1933	
Jesse Lynn Mahaffey, Haddonfield, N. J.	1931	
Harold G. McGee, Akron, Ohio	1915	1922, Charter Fellow
Marshall W. Meyer, M.D., M.P.H., Madison, Wis.	1940	1947
Edward L. Miloslavich, M.D., Zagreb, Yugoslavia	1926	1932
D. C. Y. Moore, M.D., Manchester, Conn.	1920	1937
Don C. Peterson, M.D., Nashville, Tenn.	1931	1934
Berthold S. Pollak, M.D., Jersey City, N. J.	1923	
Frank T. Powers, Glen Cove, N. Y.	1934	
Clementine J. Prior, Yakima, Wash.	1935	
Albert E. Rector, M.D., Appleton, Wis.	1943	
Benjamin B. Robbins, M.D., Bristol, Conn.	1927	
Kingsley Roberts, M.D., New York, N. Y.	1939	
Leslie A. Sandholzer, Ph.D., College Park, Md.	1940	1944
Wellington P. Shahan, Springfield, Ill.	1941	
Thomas T. Sheppard, M.D., Pittsburgh, Pa.	1946	
William M. Sill, M.D., Jamestown, N. Y.	1926	

NAME	ELECTED MEMBER	ELECTED FELLOW
William M. Smith, M.D., M.P.H., Olean, N. Y.	1938	1943
George A. Soper, Ph.D., Hampton Bays, L. I., N. Y.	1895	1922, Charter Fellow
Frances Stern, Boston, Mass.	1921	1935
Ralph E. Tarbett, Takoma Park, Md.	1928	1930
Holman Taylor, M.D., Fort Worth, Tex.	1930	
Herbert F. True, M.D., Sacramento, Calif.	1926	1930
B. H. Vollertsen, M.D., Pennsgrove, N. J.	1937	
John H. Watkins, Ph.D., New Haven, Conn.	1929	1934
C. H. Watson, Pocatello, Idaho	1943	
Kenneth M. Wheeler, Ph.D., Hartford, Conn.	1940	1943
Stephen E. Whiting, Swampscott, Mass.	1935	1940
Mrs. Harriet M. Williams, Akron, Ohio	1945	

6. THANKS FOR SPECIAL PRIVILEGES EXTENDED

Of unusual interest and value to the participants at this Seventy-sixth Annual Meeting have been the many opportunities to see at first hand many of the scientific, industrial and historical features of the Boston area.

RESOLVED that the American Public Health Association expresses its sincere thanks to the agencies of the City of Boston and the State of Massachusetts, to the universities and hospitals of Greater Boston, and to those industrial organizations that made their services available for the special benefit of our members.

7. RESEARCH IN CHILD LIFE

WHEREAS, there is great need for exchange of information about studies in progress concerning physical, mental, social, and emotional problems of children, and

WHEREAS, at the request of research workers, a Clearing House for Research in Child Life is being established in the Children's Bureau, therefore be it

RESOLVED that the American Public Health Association respectfully directs the attention of public health workers to this clearing house and recommends their full support in promoting its activities and their participation in supplying information about research projects to the clearing house.

8. SCHOOL HEALTH

WHEREAS, the American Public Health Association is concerned with the health of the total community, and

WHEREAS, it has become increasingly clear that the school health program can contribute significantly to the overall public health program, and

WHEREAS, both education and health departments have great interest in the health of the school age child, and

WHEREAS, it is becoming increasingly apparent that where there is a high degree of mutual understanding and coöperation between departments of health and education, with the resultant pooling of the resources of both departments, good school health programs are being developed, be it

RESOLVED that the American Public Health Association join with the National Education Association and the American Medical Association and other groups in approving the principle of coöperative planning of health programs which involve children of school age.

9. HEALTH OF SCHOOL CHILDREN

WHEREAS, the allocation of the moneys to schools and school districts is based upon a variety of formulae, among which is the classroom unit as computed by average daily attendance, and

WHEREAS, if funds are allotted on the basis of average daily attendance,

school officials find it to their advantage strongly to promote daily attendance of all children at school, and

WHEREAS, the encouragement of children to attend school when they are ill has deleterious effects upon the health of individual children and may be responsible for the spread of communicable disease, therefore, be it

RESOLVED that the American Public Health Association join with the National Education Association, the American Medical Association and other groups in decrying this practice, and be it further

RESOLVED that the National Council of State School Officers and the Association of State and Territorial Health Officers be urged to develop a plan of allotting tax moneys for educational purposes in a way that is not deleterious to the health of children.

10. EDUCATION OF NURSES

WHEREAS, there has been a particularly significant study of the education of nurses conducted by Dr. Esther Lucile Brown at the request of the National Nursing Council and financed by the Carnegie Foundation, (*Nursing for the Future*, Esther Lucile Brown, Ph.D., published by the Russell Sage Foundation, 1948), and

WHEREAS, the findings of this study have far-reaching implications for the future education of nurses for public health, therefore be it

RESOLVED that the Committee on Professional Education of the American Public Health Association give the report its thoughtful consideration.

11. RECRUITMENT OF NURSES

WHEREAS, an acute shortage of nursing personnel still exists, and

WHEREAS, there is particular shortage of nurses with preparation for leadership responsibilities, and

WHEREAS, nursing in public health depends upon development of nursing leaders, and

WHEREAS, preparation for such leadership is best provided in the university schools of nursing and, since the facilities of these schools are not being completely utilized, therefore be it

RESOLVED that the American Public Health Association lend its support to the Joint Committee on Careers in Nursing of the National League of Nursing Education in recruitment of students for university schools of nursing.

12. 1950 BIRTH REGISTRATION TESTING

WHEREAS, birth records and the statistics developed from them are essential for the planning, operation and evaluation of local, state, and national health programs, and

WHEREAS, improvement in registration completeness would increase the usefulness of the birth records for the efficient operation of these programs, and

WHEREAS, the successful promotion of complete registration depends on a knowledge of the status of such completeness by urban-rural and other characteristics for local areas and states

RESOLVED that the American Public Health Association considers it essential that a uniform nation-wide test of birth registration completeness be carried out to make available measures of registration completeness on local, state, and national levels, and that provisions be made to secure improvements in registration completeness.

14. MARRIAGE AND DIVORCE STATISTICS

WHEREAS, the American Public Health Association recognizes the need for more adequate marriage and divorce statistics, to provide much needed information on many aspects of the

health and well-being of the family, community, state, and nation; and

WHEREAS, these vital statistics of marriages and divorces can most feasibly be developed through the same channels as have proved effective for vital statistics of births and deaths, as part of the public health programs of the several states, with development of national statistics through coöperative state-federal relationships; now therefore be it

RESOLVED, that the American Public Health Association expresses its support for state centralization of marriage and divorce records and statistics and their integration with other vital records and statistics, and urges all states not yet operating such an integrated system to effect this urgently needed change at the earliest possible time; and be it further

RESOLVED that the American Public Health Association calls upon the National Office of Vital Statistics in the Public Health Service of the Federal Security Agency to take all steps possible for encouraging the development of systems of marriage and divorce records and statistics in every state that will make for maximum uniformity, comparability, and prompt availability of data, and for developing a program of detailed national statistics of marriage and divorce, based on national registration areas for marriages and divorces, adequate to meet the pressing needs for such vital statistics.

15. FAMILY HEALTH PROGRAM

WHEREAS, there is evidence of lack of balanced service to families by public health agencies in the community, and

WHEREAS, this lack of balance is accentuated by the allocation of subsidy moneys and nursing time for special projects, be it

RECOMMENDED, that the American Public Health Association direct its Committee on Administrative Practice, in conjunction with the Public Health Nursing Section and any other Sections as would be affected, to give consideration to the problem of securing a more balanced family health program, and to report as promptly as possible to the Governing Council.

17. SCHOOL LUNCH PROGRAM

WHEREAS, the service of nourishing noon meals at school is an important part of a program of health services and health education for children of school age; and

WHEREAS, the benefits of school lunches are freely available to all children only where public funds defray a substantial part of the cost of food, service, and administration, and

WHEREAS, federal, state and local appropriations during recent years have not increased sufficiently to keep pace with rising costs of food and labor for preparing luncheons, therefore, be it

RESOLVED that the American Public Health Association hereby endorses increased federal support under the National School Lunch Act and adequate state appropriations for matching federal funds and for the efficient operation of the program.

18. SUPPORT OF HEALTH EDUCATION AND PUBLICITY HEADQUARTERS

WHEREAS, for many years the National Publicity Council has been performing a real service in health education through the maintenance of the Health Education and Publicity Headquarters at the Annual Meeting of the American Public Health Association, and

WHEREAS, the upsurge in interest in health education techniques, programs, and materials on the part of health workers other than health educators has increased the extent and comprehensive nature of the work the

National Publicity Council has done, and

WHEREAS, although the American Public Health Association has met part of the cost of maintenance of the Headquarters, the bulk of the cost of this increase in work has had to be absorbed from the operation budget of the National Publicity Council, and

WHEREAS, because of the enormous value of this service to all of those engaged in educational work in public health, it is desirable that the Health Education and Publicity Headquarters at the Annual Meeting of the American Public Health Association should be continued. Therefore be it

RESOLVED that the Executive Board make every effort that the American Public Health Association meet the full cost of the Health Education and Publicity Headquarters; and that the Health Education and Publicity Headquarters be an Association-wide activity.

20. RECRUITMENT OF PERSONNEL

WHEREAS, the nation now faces a serious situation because of the shortage of public health personnel in all fields, and

WHEREAS, it is anticipated that in the near future more programs of public health will be established even in the face of an admitted lack of personnel, be it

RESOLVED that the American Public Health Association plan and establish an intensive national program of recruitment of public health personnel in all fields coöperating with such other interested agencies as it is deemed necessary, and be it further

RESOLVED that the American Public Health Association seek sufficient funds from all available sources to place this recruitment program on a sound basis.

21. RECOGNITION OF INCREASED FEDERAL APPROPRIATIONS FOR PUBLIC HEALTH IN CANADA

WHEREAS, the health of the Canadian people is of direct interest and vital concern to this Association and to the people of the United States, and

WHEREAS, federal grants-in-aid in the United States have constituted a device of proven value in extending public health services and stimulating planned hospital construction, at the same time equalizing the financial burden nationally, and

WHEREAS, the Government of Canada has embarked on a generous and far-reaching program of grants-in-aid to the Provinces for health surveys, general public health purposes, tuberculosis control, mental health care, venereal disease control, crippled children, professional training, public health research, cancer control, and hospital construction, therefore be it

RESOLVED that the American Public Health Association extends its hearty congratulations to the government and people of Canada for a step which makes the year 1948 memorable in the annals of public health on this continent.

HEALTH OFFICERS — 1948 INVENTORY

Are you planning to use the *Evaluation Schedule* to measure progress in 1948? Copies of the *Schedule* and the Guide to its use will be sent free upon request.

For a detailed study of your community sanitation program, ask for the new *Sanitation Evaluation Schedule.*

COMMITTEE ON ADMINISTRATIVE PRACTICE
AMERICAN PUBLIC HEALTH ASSOCIATION

TELEGRAM TO DR. MARTHA M. ELIOT FROM PRESIDENT TRUMAN

"It is my great pleasure to congratulate you, Dr. Dyer, Dr. Dubos, Dr. Waksman, Dr. du Vigneaud, Dr. Hawley and Dr. Magnuson, this year's winners of the Lasker Awards, and to convey to all of you the gratitude of the Government and that of millions of Americans for outstanding contributions to the health of our people.

"The foundation of a strong and healthy democracy depends largely on the ability of modern medicine and research to marshal its resources and to place them at the service of all the people. You as a group and individually have helped to fill these needs. You have all made contributions which have saved lives of untold thousands. The fact that the average expectancy of life has been increased a little more than six years from 1936 through 1946 is an example of what research, organization, and dissemination of new knowledge and drugs can do, and of what can be done in the future. If we attack diseases of the heart and circulatory system and cancer, which now account for over 55 per cent of the annual deaths of our people, through more research and control measures, new strides in human well-being will be made.

HARRY S. TRUMAN"

November 11, 1948

A.P.H.A. CREATES NEW SECTION ON MEDICAL CARE

A new section on Medical Care of the American Public Health Association was established by the Governing Council at the Annual Meeting in Boston on November 10. This Section will provide a medium for exchange of experience with respect to program content, administration, and technical aspects of the various fields of medical care, such as voluntary and public medical care plans, hospital services, group practice, chronic disease, and rehabilitation.

The officers of this section are:

Chairman—Edward S. Rogers, M.D., Dean, School of Public Health, University of California

Vice-Chairman—Edwin L. Crosby, M.D., Director, Johns Hopkins Hospital

Secretary—Milton Terris, M.D., Medical Associate, Subcommittee on Medical Care, A.P.H.A.

The members of the Section Council are: Dean A. Clark, M.D., Medical Director, Health Insurance Plan of Greater New York; Edwin F. Daily, M.D., Director, Division of Health Services, Children's Bureau; Herbert L. Lombard, M.D., Director, Division of Cancer and Other Chronic Diseases, Massachusetts State Department of Public Health; Ellen C. Potter, M.D., Deputy Commissioner for Welfare, New Jersey State Department of Institutions and Agencies; and Marian G. Randall, R.N., Executive Director, Visiting Nursing Service of New York.

GOVERNING COUNCIL ELECTS THREE HONORARY FELLOWS AT BOSTON

The governing Council of the American Public Health Association, on recommendation of the Committee on Eligibility, unanimously elected three Honorary Fellows at the Annual Session in Boston on November 10, 1948.

Brock Chisholm, M.D., Director General, World Health Organization, Geneva, Switzerland

V. Mary Crosse, O.B.E., M.D., Specialist in Prematurity of the City of Birmingham Department of Health, England

Karl Evang, M.D., Surgeon General of the Norwegian Public Health Service, Oslo, Norway

This brings to a total of 23 the Honorary Fellows elected to the American Public Health Association. These persons are distinguished public health workers who, with rare exceptions, live outside of North America.

The twenty Honorary Fellows elected in previous years are shown below with

the year each was added to the Honorary Fellowship roster.

George F. Buchan, M.D., London, England 1928
Hugh S. Cumming, M.D., Washington, D. C. 1936
Kendall Emerson, M.D., New York, N. Y. 1935
James Fenton, M.D., London, England 1931
Raymond E. Fosdick, LL.D., New York, N. Y. 1946
William M. Frazer, M.D., Liverpool, England 1942
Herbert C. Hoover, Palo Alto, Calif. 1923
William W. Jameson, M.D., London, England 1933
Thorvald Madsen, M.D., Copenhagen, Denmark 1926
Arthur Massey, M.D., Coventry, England 1944
E. R. A. Merewether, M.D., London, England 1942
Sir George Newman, London, England 1931
Sir John Boyd Orr, Aberdeenshire, Scotland 1942
Robert Hughes Parry, M.D., Bristol, England 1943
Gustavo Pittaluga, M.D., Havana, Cuba 1935
Charles Porter, M.D., London, England 1931
Sir Allan Powell, London, England 1931
Florence R. Sabin, M.D., Denver, Colo. 1947
René Sand, M.D., Brussels, Belgium 1946
Andrisa Stampar, M.D., Zagreb, Yugoslavia 1946

APPLICANTS FOR MEMBERSHIP

The following individuals have applied for membership in the Association. They have requested affiliation with the sections indicated.

Health Officers Section

Malcolm A. Bouton, M.D., M.P.H., 2039 Baker Ave., Schenectady, N. Y., Commissioner of Health

Guy G. Campbell, M.D., 232 Zamora Ave., Coral Gables, Fla., Recently Director General of Public Health for Ethiopia

Ricardo Cappeletti, M.D., Ministerio de Salud Publica, Montevideo, Uruguay, Director, Division of Hygiene

Elizabeth P. Fleming, M.D., 19 Wallis St., Beverly, Mass., Surgeon (R) (Ret.), U. S. Public Health Service

William V. Garnier, M.D., 203 Civil Courts Bldg., New Orleans, La., State Health Officer and President, State Board of Health

David D. Helm, V.M.D., Health Department, City Hall, Camden, N. J., Health Officer and Registrar of Vital Statistics

Theodore F. Hilbish, M.D., M.P.H., 5809 Chillum Gate Road, Hyattsville, Md., Asst. Chief, Tuberculosis Control Division, U. S. Public Health Service

Miles F. Kelly, M.D., 216 West 4th St., North Little Rock, Ark., Medical Director, North Little Rock City Health Dept.

Thaddeus D. Labecki, M.B., Box 310, Indianola, Miss., Director, Sunflower County Health Dept.

Charles-Henri Laurin, M.D., D.P.H., Immigration Detention Hospital, West Quebec, Que., Canada, Chief Administrative Medical Officer

Frederic F. Maloof, M.D., 178 Huntington Ave., Boston 15, Mass., Medical Inspector, Boston Health Dept.

George A. Miners, M.D., Box 308, Bemidji, Minn., Medical Director, District Health Unit 1

John S. Moorhead, M.D., M.P.H., Commissioner of Health, Charlotte Amalie, Virgin Islands

Eugene E. Taylor, M.D., Box 55, Mocksville, N. C., Health Officer, Davie-Stokes-Yadkin District Health Dept.

Roy J. Ward, M.D., 9 Bellevue St., Worcester, Mass., Epidemiologist, Worcester Health Dept.

Laboratory Section

Samuel R. Bozeman, Ph.D., State Department of Health, Lansing, Mich., Asst. Director, Biologic Products Division, Bureau of Laboratories

Ann S. Buck, A.M., 310 Beacon, Boston 16, Mass., Research Bacteriologist, Harvard Medical School

James W. Farrell, 19 Prospect St., Summit, N. J., Senior Technician, Fair Oaks Sanatorium

Marion Hood, D.Sc., Dept. of Pathology, Charity Hospital, New Orleans 12, La., Microbiologist

Jack Kasten, 2671-30th St., Long Island City, N. Y., Laboratory Asst., New York City Health Dept.

Wilfred C. Kennell, 2352 Augusta Ave., Fresno, Calif., Chief Public Health Technician, Fresno County Dept. of Public Health

Norman D. Levine, Ph.D., Coll. of Vet. Med., Univ. of Illinois, Urbana, Ill., Assoc. Professor and Asst. to Dean, Dept. of Veterinary Pathology and Hygiene

John P. Newman, D.V.M., Dept. of Bact.,

Michigan State College, East Lansing, Mich., Asst. Professor of Bacteriology

Carlos Quiros, M.D., 68 High St., Brookline, Mass., Student, Harvard School of Public Health

Lillian Robbins, M.S., 224 East 27 St., New York 16, N. Y., Senior Bacteriologist, Bellevue Hospital

Harry Schwachman, M.D., Children's Medical Center, Boston, Mass., Director, Clinical Laboratory

Victor N. Tompkins, M.D., Div. of Labs. & Research, State Health Dept., Albany, N. Y., Acting Asst. Director

Henry Turkel, M.D., M.A., 650 W. Boston Blvd., Detroit 2, Mich., Private Practice and Consultant on Bone Marrow Infusions

Catherine J. Witton, M.A., 300 The Fenway, Boston 15, Mass., Assoc. Professor of Biology, Simmons College

Statistics Section

Anita Bahn, 8808 Manchester Rd., Silver Spring, Md., Biostatistician, U. S. Public Health Service

Edith A. Hulshouser, Kapiolani Maternity Hospital, 1611 Bingham St., Honolulu, T. H., Medical Record Librarian

Robert Kohn, D.J., M.A., Dominion Bureau of Statistics, Ottawa, Ont., Canada, Statistician, Health and Welfare Section

William I. Lourie, Jr., M.P.H., 5500 Johnson Ave., Bethesda 14, Md., Biostatistician, U. S. Public Health Service

Mary Nunez, R.R.L., Memorial Hospital, Pawtucket, R. I., Chief Medical Records Librarian

Anthony E. Wilby, Provincial Dept. of Health, Parliament Bldgs., Fredericton, N. B., Canada, Asst. Registrar General

Roland E. Zook, M.P.H., 1606½ South Sixth St., Springfield, Ill., Special Research Analyst, Division of Services for Crippled Children, Univ. of Illinois

Engineering Section

L. T. Barnard, 200 S. Colorado, Midland, Tex., Senior Sanitarian, Midland, Ector and Howard County Health Unit

Reece Cantrell, 921 Commonwealth Ave., Waukegan, Ill., Junior Chemist, Abbott Laboratories

Donald D. Gold, Hydraulics Lab., Univ. of Florida, Gainesville, Fla., Research Asst. and Graduate Student

Louis H. Herschler, Board of Water Supply, Honolulu 1, T. H., Sanitary Engineer

Theodore A. Kolb, M.S., 1006 Woodlawn Ave., Columbia, S. C., Senior Sanitary Engineer, State Board of Health

Edward C. LaValley, M.C.E., Masonic Temple Bldg., Ithaca, N. Y., Director of Environmental Sanitation, Tompkins County Health Dept.

Edward W. Moore, A.M., 112 Pierce Hall, Harvard Univ., Cambridge 38, Mass., Assoc. Professor of Sanitary Chemistry, Harvard Graduate School of Engineering

Willard J. West, 488 Brookside Drive, Springville, Utah, District Sanitarian, Health District IV

Industrial Hygiene Section

Major Joseph R. Arsenault, 3530 Atwater Ave., Montreal, Que., Canada, Public Health Officer, Canadian Army

Raymond E. Masters, M.D., 1144 Broadway, East McKeesport, Pa., Physician, Westinghouse Electric Corporation

Jack C. Radcliffe, M.S., 411 Fort Dearborn Ave., Dearborn, Mich., Supervisor, Industrial Health Unit, Medical Section, Ford Motor Co.

Arthur J. Vorwald, M.D., Ph.D., 7 Church St., Saranac Lake, N. Y., Director, The Edward L. Trudeau Foundation

Food and Nutrition Section

Florence V. Cavanagh, 745 Massachusetts Ave., Boston 18, Mass., Dietitian, Boston City Hospital, South Dept.

Pablo Liendo-Coll, M.D., 33-20 72nd St., Jackson Heights, N. Y., Chief Physician, Nutrition Dept., Instituto Nacional Administracion

Chester A. Newhall, M.D., 72 Colchester Ave., Burlington, Vt., Assoc. Professor and Chairman, Department of Anatomy

Eduardo Paez-Pumar, Jr., M.D., Calle Chapellin Qtz. Masparro, La Florida, Caracas, Venezuela, S. A., Instructor, Universidad Central de Venezuela

Maternal and Child Health Section

Harriett M. Bartlett, 988 Memorial Drive, Cambridge 38, Mass., Assoc. Professor, School of Social Work, Simmons College

Genevieve A. Grotz, M.D., Wayne County Health Dept., Henry Ruff Rd., Eloise, Mich., Director of Maternal and Child Health

Henry G. Mello, M.D., Harvard School of Public Health, Boston, Mass., Student

Marian C. Putnam, M.D., 244 Townsend St., Roxbury, Mass., Co-Director, The James Jackson Putnam Children's Center

Constantine R. Roscoe, M.D., M.S., 1930 Chestnut St., Philadelphia 3, Pa., Medical Inspector and Pediatrician, Philadelphia Dept. of Public Health

Albert R. Taylor, M.D., M.P.H., State Department of Public Health, State Capitol, Cheyenne, Wyo., Director, Division of Maternal and Child Health and Crippled Children

Public Health Education Section

Curtis E. Avery, M.A., Rm. 508, Education Center Bldg., 220 S. W. Alder, Portland, Ore., Director, E. C. Brown Trust

Roy E. Dickerson, LL.M., 312 West 9th St., Cincinnati, Ohio, Exec. Secy., Cincinnati Social Hygiene Society

Robert D. Feild, Newcomb College, New Orleans, La., Director, Newcomb Art School

Blanche L. George, International House, 500 Riverside Dr., New York, N. Y., Student, Columbia School of Public Health

Sidney S. Goosen, 3105 Carpenter, Detroit 12, Mich., Administrator, North Detroit General Hospital

Marguerite E. Green, M.P.H., 11 Waverly, Brookline, Mass., Health Educator, U. S. Public Health Service

Tin An Hu, M.D., c/o Dr. Loh, 103 Townsend St., Roxbury, Mass., President, National Kiangsu Medical College (China)

Andie L. Knutson, Ph.D., Office of Health Education, U.S.P.H.S., Washington, D. C., Chief, Research and Evaluation Section

Mary Jo Kraft, Tuberculosis Control Div., U.S.P.H.S., Washington 25, D. C., Health Educator

B. G. Loveless, Court House, Dallas, Tex., Health Educator, Dallas County Health Dept.

Fidel A. Maciel-Crespo, M.D., Calle 47-316, LaPlata, Argentina, S. A., Professor, Facultad de Medicina de La Plata

James C. McCullough, Rm. 605, 600 W. 168th St., New York, N. Y., Research Asst., Columbia University

Sheldon A. Miller, M.H.A., 2404 Callow Ave., Baltimore 17, Md., Hospital Division, U. S. Public Health Service

Merwin L. Noble, M.P.H., 3200 Humphrey Ave., Richmond, Calif., Health Educator, Richmond Health Dept.

Ivan B. O'Lane, M.P.H., 4417 Williams Ave., Seattle 99, Wash., Recently completed studies at University of Michigan School of Public Health

Katherine M. Olmsted, R.N., 832 James St., Syracuse, N. Y., Field Instructor, Division of Public Health Education, State Dept. of Health

Robert H. Pansky, R.N., Health Dept., 740 Main St., East Hartford, Conn., Health Inspector

Ann B. Tipton, M.A., 511 West 113th St., New York, N. Y., Instructor, Dept. of Physiology, Hunter College

Margaret Warner, M.P.H., 21 Searle Ave., Brookline, Mass., Health Educator, U. S. Public Health Service

Public Health Nursing Section

Eleanor Belfint, 823 West St., Wilmington, Del., Nursing Supervisor, State Board of Health

Ruth Bunker, R.N., 1715 Washington St., Charleston, W. Va., Nurse Consultant, Bureau of Tuberculosis Control, State Dept. of Health

Adele Henderson, R.N., 4550 Connecticut, N. W., Washington, D. C., Nurse, Prince George County Mental Health Clinic

Marcetta Horne, R.N., Box 330, Pittsfield, Mass.

Norma C. Larson, 74 Bruce Road, Waltham, Mass., Public Health Nursing Instructor, Massachusetts General Hospital School of Nursing

Pansy V. Murphy, 1851 Columbia Road, N. W., Washington, D. C., Senior Asst. Nurse Officer (R), U. S. Public Health Service

Gladys E. Warren, 604 City Hall, Spokane, Wash., Supervisor of Public Health Nursing, Spokane Visiting Nurse Assn.

Epidemiology Section

Fabio de Carvalho-Nunes, M.D., Travessa Bocanera Junior 6 Barris, Salvador, Bahia, Brazil, S. A., Physician, Division of Tuberculosis, Bahia State Health Dept.

Kenneth S. Young, D.V.M., State Health Department, Austin, Tex., Veterinarian, U. S. Public Health Service

Olga B. Furth, M.D., 1214 North Clinton, Dallas, Tex., Acting Director, School Health Service, Dallas Independent School District

Roy E. Joyce, M.S., 919 Whites Road, Kalamazoo, Mich., Asst. Professor of Biology and Hygiene, Western Michigan College

Howard S. Parsons, M.Ed., 309 Delaware Ave., McDaniel Crest, Wilmington 284, Dela., Director of Health and Physical Education, Mt. Pleasant Special School District

Floyd O. Reed, M.D., 27 Ludlow Street, Yonkers, N. Y., Acting Director, School Health Service, Board of Education

Dental Health Section

Harry K. Brown, D.D.S., D.D.P.H., 72 Metcalf St., Ottawa, Ont., Canada, Chief, Dental Health Division, Dept. of National Health and Welfare

Herbert L. Hayward, D.D.S., 72-A Fifth Walk, Brooklyn 12, N. Y., Private Dental

Practice and Fellow, New York University
James H. Pence, D.D.S., State Department of Health, Bismarck, N. D., Director, Division of Oral Hygiene
Naomie Turner, Ed.M., Forsyth Dental Infirmary, Boston, Mass., Research Assoc.

Medical Care Section

Mark A. Freedman, M.D., Bronx Hospital, 1276 Fulton Ave., New York 56, N. Y., Asst. Director
Anna Harrison, M.A., 2917 Ursuline Ave., New Orleans, La., Chief, Section of Medical Social Service, State Dept. of Health
Percy H. Jennings, Jr., M.D., 2580 Bancroft Way, Berkeley 4, Calif., Practising Pediatrician, Berkeley Pediatric Group
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John P. Peters, M.D., 789 Howard Ave., New Haven 11, Conn., John Slade Ely Professor of Medicine, Yale Univ. School of Medicine
Stanley H. Saunders, 31 Canal Street, Providence, R. I., Exec. Director, Hospital Service Corporation of Rhode Island

Unaffiliated

Marcella Bernstein, 8010 Eastern Drive, Silver Spring, Md., Editor, Scientific Publications, Tuberculosis Control Division, U. S. Public Health Service
Franklin B. Caffee, U.S.P.H.S., 15 Pine St., New York 5, N. Y., Public Health Representative
Victor E. Costanzo, M.H.A., 1438 S. Grand, St. Louis 4, Mo., Instructor in Hospital Administration, St. Louis Univ.
Lawrence H. Flett, National Aniline Div., Allied Chem. & Dye Corp., 40 Rector St., New York 6, N. Y., Director, New Products Division
Henry M. Hardwicke, M.D., 180 N. Snelling, St. Paul, Minn., Medical Director, Health Center Services Committee
Paul R. Hawley, M.D., Dr.P.H., Associated Medical Care Plans, 330 S. Wells, Chicago 6, Ill., Chief Exec. Officer, Blue Cross and Blue Shield Commissions
Edward B. Holley, M.D., 1020 Boston Bldg., Salt Lake City, Utah, Practice of Pediatrics
O. H. Jacobson, D.V.M., 239 W. 13th South, Salt Lake City, Utah, Chief Veterinarian, Salt Lake City Health Dept.
Samuel S. Keener, M.D., 1203 Beacon St., Brookline, Mass., Private Practice
H. Clifford Loos, M.D., 947 West 8th St., Los Angeles 14, Calif., Administrator, Ross-Loos Medical Group
Thomas B. McKneely, M.D., 4427-17th St., N., Arlington, Va., Chief Medical Officer, Office of Vocational Rehabilitation, Veterans Administration
Mary B. Moss, 1129 Vermont Ave., N. W., Washington 5, D. C., Exec. Secy., American Association of Medical Social Workers
Margaret I. Stein, 1700-33rd Place, S. E., Washington, D. C., Washington Representative, Committee for the Nation's Health
Carlyle F. Stout, M.D., 123 Lincoln St., Framingham, Mass., Asst. Surgeon, U. S. Public Health Service; Clinical Fellow in Medicine, Massachusetts General Hospital
Eugene J. Taylor, M.S., The New York Times, Times Square, New York 18, N. Y., Editorial Staff (Medicine and Public Welfare)
Richard C. Williams, 221 North President Street, Jackson, Miss., Exec. Director, Mississippi Hospital and Medical Service

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Lions Club in A.P.H.A.

At the 76th Annual Meeting of the American Public Health Association in Boston, a Lions Club from the membership of the A.P.H.A. was organized. The Chairman selected was Leonard C. Murray, Director of Health Education, Iowa State Health Department. It is planned that this group will meet each year in connection with the Association's Annual Meeting. Lions in the Association are reported by its Chairman to number about 60.

A.P.H.A. membership application blank on page XXXIII

EMPLOYMENT SERVICE

The following pages present information for those seeking qualified public health personnel and for those seeking positions in public health.

This is a service of the Association conducted without expense to the employer or employee.

Address all correspondence to the Employment Service, A.P.H.A., 1790 Broadway, New York 19, N. Y., unless otherwise specified.

POSITIONS AVAILABLE

Dentist-public health for new program in urban and rural communities served by County Health Department. Experience and graduate training in public health desirable. Salary $6,600 to $8,172. Write: Health Officer, Alameda County Health Department, San Leandro, Calif.

Assistant Public Health Engineer for suburban part-county health district 310,000 population. Rural and urban problems in all fields of public health engineering. Sanitary engineering degree and two years of public health engineering experience, or equivalent required. Competitive state civil service position. Salary $2,910 to $3,750 plus emergency compensation based on BLS index, amounting to $705 in 1947. Write: Westchester County Department of Health, White Plains, N. Y.

Health Officer needed for town of 28,000 convenient to medical and cultural centers. Salary minimum $6,000 plus car allowance. Write: Board of Health, Milford, Conn., for application.

Health Officer for DeWitt-Piatt Bi-County Health Unit. Central Illinois counties half way between Chicago and St. Louis. Population 35,000 largely rural. Salary range $7,200–$9,000. Write: Hal E. Gronlund, D.D.S., President, Board of Health, 202½ East Side Square, Clinton, Ill.

Health Officers — opportunities for young physicians. Previous experience and training desirable but not essential. Must be licensed or eligible for licensure in Virginia. Salaries $5,736 to $7,098 plus car allowance and official expenses. Advancement opportunities within the organization. Write: State Department of Health, Richmond, Va.

Medical Assistant Director for a 250 bed university affiliated hospital in the process of expanding to 325 beds; rare opportunity for one interested in administration, assisting in a detailed survey of medical care in the community and helping set up a medical care program for the community. Salary $6,000–$7,000. Write: **Box A-38**, Employment Service, A.P.H.A.

M.D. Technical Director for a large non-profit blood bank in New England. Activities include technical supervision of blood collection by Mobile Units and in a fixed center, direction of the laboratory processing of blood, medical and lay education on the need and uses of whole blood in medical practice. Please submit complete personal description and qualifications in first letter. Write: **Box A-39**, Employment Service, A.P.H.A.

Microbiologist for teaching and research in eastern university medical center. Ph.D. or M.D. required. Please state training and experience. Write **Box A-40**, Employment Service, A.P.H.A.

Nurses—Opportunity for several in expanding generalized program. Completion of approved course in public health nursing required. Rural and urban experience offered. Some cars are available. Salary $3,000 to $3,696. Write: Director of Public Health Nursing, Alameda County Health Department, San Leandro, Calif.

Two Staff Nurses for Sutter-Yuba Health Department, Central California. Salary $250–$310 monthly. Write: Dr. C. A. Scherer, County Health Officer, 309 C Street, Marysville, Calif.

Nurses—Salary $221–$269. Maintenance deduction $31. Three weeks vacation, sick leave, pension, 12 holidays, 48 hour week, divided hours, rotating shifts. Requirements: Wisconsin registration, under 50 years. Send picture with first inquiry. Write: Supt. of nurses, Wisconsin State Sanatorium for Tuberculosis, Statesan, Wis.

Supervisors of Public Health Nurses, Baltimore County Health Department. Population 248,000; suburban, industrialized and rural areas; county seat 8 miles from Baltimore. Generalized service. Degree and experience required. Salary $3,100 to $3,600; for additional preparation in child hygiene, venereal disease, mental hygiene, or orthopedics, $3,400 to $3,900. Also **Public Health Nurses** beginning salary $2,300 (for trainee) to

$2,700 depending on qualifications; increases to $3,300. One month's vacation; 5 day, 35½ hour week; sick leave; retirement plan. For use of personal car, 7¢ mileage. Write: Dr. Wm. H. F. Warthen, Health Officer, Baltimore County Health Dept., Towson 4, Md.

Qualified Public Health Nurse for suburban Westchester County, 45 minutes from New York City. Service integrated with Nursing Division of Westchester County Health Department. Bedside and teaching program. Write: P. O. Box 280, Mamaroneck, N. Y.

Nurses are needed for public health work in Texas. Public Health Nursing salary ranges: Director, Nursing Service $287.50–$300 per month; Senior $240–$265 per month; Junior $205–$230 per month; Graduate Nurse $165–$190 per month. Car allowance of approximately $600 per year in addition, Merit System and Retirement plan in effect. Write: George W. Cox, State Health Officer, Austin 2, Tex.

Two Public Health Nurses for staff positions in general public health program in new and enlarging health department in interesting county in South Eastern Michigan. Close to two large university teaching centers in Public Health Nursing. Salary based on public health experience and training. County pension plan, vacation and sick leave policy. Must have an automobile, but mileage is furnished. Write: Director, Macomb County Health Department, County Building, Mt. Clemens, Mich.

School Nurse with training and experience in school health education and public health. State age, experience, education, and salary desired. Write: Board of Education, 221 West Lead Avenue, Albuquerque, N. M.

Public Health Nursing Consultant in Pediatrics; $4,150 to $4,902. Public health nurses—$3,397 to $4,150. Graduate nurses to train for public health nurses $2,645 to $3,397. Liberal federal government retirement plan; 40 hour, 5 day week; 26 days annual leave; advancement; opportunities for study and cultural development in the nation's capital. Write: Mrs. Josephine P. Prescott, Director, Bureau of Public Health Nursing, District of Columbia Department of Health, Washington, D. C.

School Nurse, starting salary $2,000. Experience or formal education in the field of public health. Write: Robert A. Weston, Jr., M.D., Acting Health Officer, Milford Department of Health, Milford, Conn.

Assistant Sanitarian for city and county generalized program with emphasis on food and milk sanitation. Degree, training, and experience required. Salary range $2,800 to $3,000; travel allowance 6¢ a mile. Retirement plan; sick leave; liberal vacation. Write: Ottawa County Health Department, Court House, Grand Haven, Mich.

Staff School Nurse for small, well organized school health department, Pacific Coast. Salary about $2,850; 35 hour week; 9 calendar months including 2 weeks' vacation Christmas, one week Easter. Annual increment for 10 years, tenure after 3 years. B.A. and P.H.N. degrees, own car. Send photograph, age, degrees, training and experience, marital status, number of children. Write: **Box A-41.**

The Illinois Civil Service Commission is giving an examination for vital statistics registrar in the State Department of Public Health. Salary range $3,600–$4,800. State residence is not necessary. Duties include directing the state-wide registration of accurate birth and death records, and responsibility for supervising a large clerical staff in the management of vital records. Knowledges tested in the examination will include vital statistics laws and regulations, public health statistics, public health administration, and general administration and supervision. Apply before February 5, to : Illinois Civil Service Commission, 501 Armory Building, Springfield, Illinois.

POSITIONS WANTED

Bacteriologist, Ph.D., with 10 years' academic, army, and virus and TB research experience desires laboratory or teaching position in midwestern hospital, small university, or state health department. Write **Box 1-D2,** Employment Service, A.P.H.A.

Technician — medical, experienced in both hospital and research laboratories. Prefers position in Air Medicine or with Blood Bank or Center, or would like to get into Public Health. Will consider territorial or foreign assignment. Write: **Box L-5,** Employment Service, A.P.H.A.

Health Educator, M.A. in health education (Teachers College, Columbia) 32, male, married. Two years' working experience in health education with official and voluntary agencies including teaching; 5 years army officer in charge of group and public relations work in Special Service Division. Interested in position

with official or voluntary agency or teaching. Write **Box HE-7**, Employment Service, A.P.H.A.

Health Educator, M.P.H., female, white, 5 years' teaching experience on secondary level in a large city school system; one and half years as a supervisor at a municipal social hygiene clinic VD patient education program; one year as a social worker with a public county welfare department. Interested in school health and community organization either with a voluntary or public agency. Write: **Box HE-8**, Employment Service, A.P.H.A.

Medical Administrator, M.D., (Rush), M.P.H. (Harvard), male, 40, married. Twelve years' experience in public health work including local health administration (state and city) epidemiology, teaching of preventive medicine, army preventive medical services; 3 years' hospital training including radiology and pathology. Currently employed but interested in opportunity with greater responsibility and challenge. Minimum salary considered $10,000 to $12,000 depending on locality. Extensive traveling undesirable. Write **Box C-8**, Employment Service, A.P.H.A.

Public Health Physician, age 40, seeks appointment with Student Health or Health Department. Experienced and trained in all phases of public health work. Excellent references. South preferred. Will consider foreign appointment. Personal interview can be arranged. Give salary and particulars. Write **Box Ph-10**, Employment Service, A.P.H.A.

OPPORTUNITIES

Kentucky needs public health workers. There are vacancies for doctors, nurses, and other personnel both in the State Health Department and in County Health Departments. Salaries are open, depending upon qualifications. Write: Bruce Underwood, M.D., State Health Commissioner, Kentucky State Department of Health, 620 South Third Street, Louisville 2, Ky.

ANNOUNCEMENT OF POSTGRADUATE FELLOWSHIPS

Research

Research fellowships are available in Virology, Orthopedic Surgery, Pediatrics, Epidemiology, and Neurology. These fellowships are intended to emphasize: (1) advanced training in the basic sciences as they apply to the particular specialty and to research, and (2) experience in research, which need not be immediately related to poliomyelitis.

Eligibility requirements: M.D. (or when appropriate, a degree of Ph.D.); a minimum of two years of training on the residency level in the specialized field; presentation of an appropriate program of study and investigation; United States citizenship; sound health as attested by a physical examination.

Physical Medicine

Clinical fellowships are available to physicians who wish to prepare for eligibility for certification by the American Board of Physical Medicine.

Eligibility requirements: Graduation from a Class A school of medicine; completion of a rotating internship of not less than one year in a hospital approved by the Council on Medical Education and Hospitals of the A.M.A.; license to practise medicine in one or more states; citizenship in the United States; sound health as attested by a physical examination; age limit: 40.

Public Health

Fellowships are available to physicians for one year of postgraduate study leading to a Master of Public Health degree at a school of public health approved by the American Public Health Association.

Eligibility requirements: Graduation from a Class A school of medicine; completion of an internship of not less than one year in a hospital approved by the Council on Medical Education and Hospitals of the A.M.A.; license to practise medicine in one or more states; citizenship in the United States; sound health as attested by a physical examination.

Application may be made to the National Foundation for Infantile Paralysis, 120 Broadway, New York 5, N. Y., at any time during the year. Selection of candidates will be made on a competitive basis by committees composed of specialists in each field. Awards are based on the individual need of each applicant.

Announcement of Regular Corps Examination for Dietitians

United States Public Health Service

A competitive examination for appointment of dietitian officers in the Regular Corps of the U. S. Public Health Service will be held on February 28, 1949, at various points in the United States.

Appointments are permanent in nature and provide opportunities for a lifetime career in the field of dietetics at Marine Hospitals and other Public Health Service facilities.

Appointments will be made in the grades of Junior Assistant (2nd Lt.), Assistant (1st Lt.), and Senior Assistant Dietitian (Captain). Annual entrance pay is from $2,955.50 to $4,489.00 as determined by the grade of appointment and existence of dependents. All applicants must be graduates from an approved college and have a baccalaureate degree in the field of dietetics.

Additional information and application forms may be obtained by writing to:
Surgeon General, U. S. Public Health Service, Washington 25, D. C.
Attention: Division of Commissioned Officers.

Regular Corps Examination for Nurse Officers

United States Public Health Service

A competitive examination for appointment of nurse officers in the Regular Corps of the U. S. Public Health Service will be held on March 17, 1949, at various points in the United States.

Appointments are permanent in nature and provide opportunities for a lifetime career in the fields of clinical and public health nursing at Marine Hospitals, and in a variety of public health program.

Appointments will be made in the grades of Junior Assistant (2nd Lt.), Assistant (1st Lt.), and Senior Assistant Nurse Officer (Captain). Annual entrance pay is from $2,955.50 to $4,489.00 as determined by the grade of appointment and existence of dependents. All applicants must be registered nurses with a baccalaureate degree from an approved school of nursing. (Past nursing experience in the Army, Navy, or Public Health Service may serve, in certain instances, in lieu of academic degree.)

Additional information and applicaton forms may be obtained by writing to:
Surgeon General, U. S. Public Health Service, Washington 25, D. C.
Attention: Division of Commissioned Officers

Advertisement

All communications should be sent to Burneice Larson, Medical Bureau, Palmolive Building, Chicago 11, Ill.

Opportunities Available

WANTED—(a) Public health physician to direct new program; well staffed department; California. (b) Medical director; public school system, having more than 80 schools, school population of nearly 70,000; city of 400,000; university medical center; West. (c) District health officer; duties consist of directing county health department and developing program; $8,000–$9,000; Pacific Coast. (d) Medical director, health service of national organization; $7,200–$9,000; headquarters, metropolitan area. (e) Several physicians qualified in general public health or one of the clinical specialties; opportunities also for physicians interested in obtaining public health training; positions of varying responsibility in city and county health departments; salaries depend upon qualifications, ranging from $5,650 to $10,000; East. (f) Assistant health officer; county health department; headquarters in college town of 25,000; Southeast. **PH1-1** Medical Bureau (Burneice Larson, Director), Palmolive Building, Chicago 11.

WANTED—(a) Director of division of dental health and operator of dental mobile unit equipped for dental work in rural area; state department of health; headquarters in winter resort city, South. (b) Public health dentist; work primarily with school children, examinations, sodium fluoride treatments, promoting dental health education program; $6,000. **PH1-2** Medical Bureau (Burneice Larson, Director), Palmolive Building, Chicago 11.

WANTED—(a) Health education coördinator; county health department; newly created position; Southern California. (b) Sanitary engineer; municipal health department; headquarters, university medical center; West. (c) Public health engineer; state department of health; considerable experience required; $3,200–$4,500. (d) Sanitary chemist; enlarged research program; university medical center; Middle West. (e) Health educator; municipal tuberculosis society; one of the largest cities east of the Mississippi; opportunity for developing services. **PH1-3** Medical Bureau (Burneice Larson, Director), Palmolive Building, Chicago 11.

WANTED—(a) Assistant director; voluntary organization having staff of six field nurses; college town of 50,000; East. (b) Public health nurse supervisor and, also, several public health staff nurses; headquarters in university medical center; Pacific Coast. (c) Public health nurse to conduct rheumatic fever program; project supervised by three counties; headquarters, university medical center. (d) Public health nurse to serve as executive secretary, health organization; duties include conducting survey; Middle West. (e) Public health nurse, qualified in teaching; new program in nursing education; fairly large city in one of the Latin American countries; $4,200. (f) Public health supervisor to establish and conduct county unit; headquarters in small town, short distance from several large cities. (g) Public health nurse for teaching position with voluntary health agency offering bedside nursing care and family health service to large city and surrounding area; East; $3,900–$4,200. (h) Public health nurse for position as field representative, voluntary health association; duties include public relations, editing publications, health education; winter resort town; South. (i) Coördinator of training; preferably candidate with Master's degree in public health and four to five years' experience; $5,000. **PH1-4** Medical Bureau (Burneice Larson, Director), Palmolive Building, Chicago 11.

Advertisement

Opportunities Wanted

Physician distinguished in the field of public health medicine; B.S., M.S., M.D., D.P.H. degrees, leading schools; enviable career of successful experience in academic and administrative public health work; recognized as able leader; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

Sanitary engineer; B.S. in Civil Engineering with sanitary option; considerable work towards Master's degree in public health engineering; eight years, director of sanitation, state health department, four years, sanitary engineering in foreign fields; for further information, please write Burneice Larson, Director, Palmolive Building, Chicago 11.

Health educator; A.B., M.S.P.H., eastern university; several years' teaching experience: Bacteriology, Physiology, Hygiene, Education; four years, health educator, county health department; three years, health coördinator, liberal arts college; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

Dentist; six years, military service; since receiving discharge on temporary appointment; 12 years, private practice during which time he served as public health dentist on part-time basis; before entering military service, several years' teaching experience; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

Sanitary chemist; Ph.D.; four years, assistant professor of biology, midwestern college; past five years, consultant chemist, midwestern city where his duties include research in water and sewerage treatment; simultaneously has been holding important teaching appointment; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

Public health nurse; Master's degree, major in public health supervision; six years, staff nursing, rural and city health departments; six years, supervisor, municipal department of health; seeks administrative position in education, tuberculosis, or public health nursing; for further information, please write Burneice Larson, Director, Medical Bureau, Palmolive Building, Chicago 11.

NEWS FROM THE FIELD

Stone Heads National Advisory Committee on Local Health Units

Officers for the year 1949 were elected by the National Advisory Committee on Local Health Units at a meeting in New York on December 2. Thus, a committee which has been functioning on an interim basis under the sponsorship of the National Health Council for a year, was fully organized. James Stone, program director of the National Tuberculosis Association, was made chairman to succeed Philip Mather, President of the National Health Council, who has served as chairman pro tem. Dr. G. F. Moench, Health Chairman of the Congress of Parents and Teachers, is vice chairman, and Martha Luginbuhl, Research Assistant of the A.P.H.A.'s Subcommittee on Local Health Units, secretary. A new agency, the National Sanitation Foundation, was welcomed to the committee, which now has representation from 51 national agencies. Of these, 28 are citizen agencies and 23 voluntary health and allied agencies.

An executive committee, including the officers serving ex officio, was chosen as follows:

Haven Emerson, M.D., Chairman, Subcommittee on Local Health Units
Mrs. Stephen Francisco, Public Welfare Chairman, General Federation of Women's Clubs
Harold Friermood, Secretary Health and Physical Education, National Board, Young Men's Christian Association
Mrs. Dorothy Hamilton, National Urban League
Harold Nutter, Lion's International
Joseph V. Tobin, American Federation of Labor

At this meeting Dr. Haven Emerson reviewed the progress of the local health units program from its inception with the A.M.A. and A.P.H.A. resolutions of 1942. Among the developments he reported were resolutions from about a dozen of the committee agencies urging the support of community activities for better local health services; the growth of state health councils; the discussion of the local health units program in the house organs of the various agencies; the programming of this project in national agency meetings, the leadership of voluntary or civic agencies in developing local public opinion—the tuberculosis association in one place, the A.M.A. Women's Auxiliary in another, Lion's International in another, League of Women Voters in still another, and many others; the sponsorship of the Local Health Services Bill of 1948 by the National Congress of Parents and Teachers, and its plans for reintroduction in the 81st Congress; the growing provisions for state aid to local health services as in California, which passed a state aid law in 1947 and backed it up with a $3,000,000 appropriation and provisions for minimum standards as a prerequisite for aid; the growth of consolidated health districts in many states, notably Florida and Michigan, and the resolutions of the Local Health Units Section of the National Health Assembly. These and many others show "a definite spirit of excitement quite in contrast to the inert attitude of 7 or 8 years ago."

Dr. Emerson pointed out that 44 of the 48 state legislatures would meet in 1949 and that this was therefore the crucial year for catching up on legislative lags—permissive health unit legislation in some states, and addition to or clarification of such legislation in others, definite provision for state aid in many, removal of salary ceilings in several, most notably Kentucky. He urged every national agency to keep its

state and local branches alerted to the status and significance of legislation in their own states.

Reported also was a local health units story to appear in *Colliers Magazine* of January 22. This was planned and written by a free lance writer who saw its possibilities and without special "inside" influence from the committee. Another free lance writer is exploring the same idea with a monthly popular magazine. These are the signs, according to Dr. Emerson, that indicate national recognition of the importance of the Princeton group who are now the facilitating agencies for carrying this program to its goal.

Among the actions taken by this meeting through resolution, formal motion, or common consent were the following:

1. Creation of a subcommittee on educational materials which would evaluate existing pamphlets on what to expect of a community health department and what is needed to get one, and to prepare further educational aids if they are found to be necessary. In this project close coöperation may be expected from the U. S. Public Health Service. A need was expressed particularly for a very short and simple outline that would be universally read and understood by club members. The members of this subcommittee, appointed by the Chairman, Mr. Stone are:

Mrs. Dwight Perrin, Chairman, Board Member, American Social Hygiene Association
H. M. Graning, M.D., Director of Local Health Services, U. S. Public Health Service
Mrs. Irmagene Holloway, Health and Safety Chairman, National Federation of Business and Professional Women's Clubs
G. F. Moench, M.D.
Lee A. Rademaker, M.D., Member-at-Large, National Advisory Committee on Local Health Units
Mrs. Roy Weagly, President, Associated Women of the American Farm Bureau Federation

2. Commendation to the National Health Council staff for the two regional conferences already held and a recommendation that others be planned at suitable times and places, particularly in relation to regional and state public health association meetings.

3. Reaffirmation of last year's resolutions calling upon all the agencies to use appropriate means within their power to get coverage of the entire nation with local health units under competent direction.

4. Reëndorsed the resolution of last year, "that representatives at this meeting, in their individual capacities, recognize the necessity for federal assistance to states to complete the coverage of their respective populations and areas with full-time local health units under professional direction."

5. The Congress of Parents and Teachers was commended for its plan to reintroduce the Local Health Services Bill of 1948 in the 81st Congress.

6. The *Bulletin on Local Health Units* should be continued, approximately on a monthly basis.

7. A vote of appreciation to Haven Emerson, M.D., for his fruitful leadership of six years in this program.

8. The Secretary was instructed to record in the official minutes of the meeting a statement expressing deep appreciation of the group for the expert leadership given by Philip Mather to the National Advisory Committee on Local Health Units during this strategic period of early development and organization.

MICROBIOLOGICAL INSTITUTE IN NATIONAL INSTITUTES OF HEALTH

Plans for a Microbiological Institute in the National Institutes of Health, U. S. Public Health Service, were announced in October. In his announcement, Assistant Surgeon General R. E. Dyer, director of the National Institutes said: "The concentration of cancer, heart, and dental research in special institutes has made it necessary to regroup within the Microbiological Institute and the Experimental Biology and Medicine Institute, which was established last December, important research dealing with such diseases as malaria, polio, typhus, and the common cold, and a number of basic research studies in such fields as physics, chemistry, nutrition, metabolism, and pathology. This enables work in these diseases and fundamental research to go forward with the same intensified effort being given to cancer, heart, and dental problems."

PUBLIC HEALTH LABORATORY DIRECTORS HONOR DR. KAHN

The Conference of State and Provincial Public Health Laboratory Directors meeting in Boston November 7 at the time of the 76th Annual Meeting of the American Public Health Association devoted their 28th Annual Dinner to honor Dr. Reuben L. Kahn in commemoration of the 25th Anniversary of the first demonstration of the Kahn reaction. This was presented on October 10, 1923, in Boston before the 52nd Annual Meeting of the American Public Health Association.

The dinner which was presided over by Dr. I. H. Borts of Iowa City had as master of ceremonies Dr. F. R. Hassler of Oklahoma City. Dr. Kahn described his work with the serological test for syphilis and presented among others Miss Elizabth B. McDermott who has long been his associate.

Also in commemoration of this anniversary, the *Journal of the Michigan State Medical Society* devoted its October, 1948, issue to honoring Dr. Kahn, with scientific articles on the test and a bibliography of Dr. Kahn's books and articles, consisting of 170 titles.

The Conference of State and Provincial Public Health Laboratory Directors presented Dr. Kahn with a medallion bearing a relief portrait on one side and the commemoration of the 25th anniversary of the Kahn reaction on the other.

COURSE ON VIRUS RESEARCH

The Department of Microbiology of New York University College of Medicine announces an intensive course in the theories and techniques of virus research to be given from March 21 to June 3, 1949. The course, which is expected to occupy the full time of the student, will include lectures, laboratory work, and discussion. Credit for two full courses will be given by the Graduate School of New York University. The laboratory work will include the techniques currently used with bacterial and mammalian viruses such as, methods of cultivation, purification, concentration, and assay of viruses, their serological reactions, and the hemagglutination. Because the number of students is limited to 12, early application

is recommended. Further information may be obtained from the Department of Microbiology, 477 First Avenue, New York 16, N. Y.

WESTERN BRANCH A.P.H.A. ACTIVITIES

Walter S. Mangold, the Secretary of the Western Branch, A.P.H.A., with offices at the School of Public Health, University of California, Berkeley, has announced that the 1949 Annual Meeting of the Western Branch will be held in Los Angeles with headquarters at the Biltmore Hotel, May 30–June 1, 1949. Special efforts are under way to make the program outstanding and the exhibit will be emphasized at the forthcoming meeting.

Mr. Mangold has announced the appointment, by George M. Uhl, M.D., President of the Western Branch and Health Officer of Los Angeles City, of the following committee chairmen:

Richard A. Koch, M.D., *Finance Committee*
Ellis Sox, M.D., *Membership Committee*
Charles M. Carpenter, M.D., *Program Committee*
Dorothy B. Nyswander, Ph.D., *Publications Committee*
Walter H. Brown, M.D., *Constitution Committee*

A News Letter to the members of the Western Branch is planned to acquaint all concerned with Western Branch activities.

Mr. Mangold announces that the 1948 *Annual* with the papers from the Salt Lake City meeting of the Western Branch in 1948 will shortly be published.

Mrs. Alice Harris, Berkeley, Assistant to the Secretary has been employed on a full-time basis as of October 1 to maintain continuity in the Branch office.

REORGANIZATION OF PITTSBURGH HEALTH DEPARTMENT

In October, 1948, the U. S. Public Health Service delivered to Mayor Lawrence of Pittsburgh (Pa.) a study of that City's Health Department, made by the Service under the direction of E. R. Coffey, M.D., medical director of District 1 of the Service.

Mayor Lawrence has reported that he will use the study as a guide in reorganizing the department. Several steps in the reorganization process have already been taken. In September, Erwin C. Drescher, Senior Surgeon, U. S. Public Health Service, became consultant to the Pittsburgh Health Department with a specific request by the Mayor for advice on the reorganization.

In the field of environmental sanitation, Herbert J. Dunsmore, formerly public health engineer of the Battle Creek-Calhoun County (Mich.) Health Department became Pittsburgh's Public Health Engineer in charge of all food, milk, housing, and other sanitary services of the department. Simultaneously, the Standard Restaurant Ordinance of the U. S. Public Health Service was adopted by the Pittsburgh City Council after a 9 month study during which Council members had visited St. Louis and other cities to see firsthand the operation of the grading and placarding system. Placarding will begin in Pittsburgh in January, 1950. In September, also, food inspectors were given an intensive 2 week training course by a training team of the U. S. Public Health Service.

Also in September, Janice Mickey, former director of public health nursing of the Rochester-Olmsted County (Minn.) Health Department, became Chief of Pittsburgh's Bureau of Public Health Nursing Services.

These new appointees and others of the Pittsburgh staff will lecture at the University of Pittsburgh as a part of the program of establishing a close relationship between the University Medical Center and the City Health Department.

RED SQUILL REFERENCE POWDER AVAILABLE

Although red squill is now readily

available for use in rodent control, difficulties have arisen because of the variable potency of separate batches. To help resolve these difficulties, the National Pest Control Association has developed a "tentative red squill reference powder" for testing the strength of squills. Test sets may be obtained from the National Pest Control Association, 3019 Ft. Hamilton Parkway, Brooklyn 18, New York, $2 per test; $1 in quantities of six or more.

CHICAGO SURVEY OF Q FEVER

Representatives of management and labor in the meat and dairy industries met at the Chicago Health Department recently to arrange for the collection of 1,000 blood samples for a survey of Q fever in the city, particularly to determine whether the disease is an occupational hazard to livestock workers.

For the survey Chicago City Health Department teams are collecting blood samples from packinghouse, slaughterhouse, and rendering plant workers and workers on dairy farms, at raw milk receiving stations and pasteurization plants. Although no cases diagnosed as Q fever were reported in 1947 or in 1948, 30 cases were reported among Chicago packinghouse workers in 1946.

MILK AND FOOD SANITATION RESEARCH SYMPOSIUM

A two day symposium on recent research in milk and food sanitation is being sponsored by the Sanitation Study Section of the Division of Research Grants and Fellowships, U. S. Public Health Service, January 26–27, 1949, to be held in the auditorium of the U. S. Department of Commerce, Washington, D. C. The program calls for a discussion of milk and related topics on January 26 and of other foods on January 27. Further information may be obtained from Henry L. Roahrig, Executive Secretary of the Sanitation Study Section in Washington.

HEALTH CONSERVATION FOUNDATION PROPOSED

A group of four men in Philadelphia —S. S. Huebner, Wharton School of Finance; William Harvey Perkins, M.D., Dean of Jefferson Medical School; William G. Schmidt, and E. Burke Wilford —are the founders of a proposed Health Conservation Foundation to make "preventive medical care available to the average person in America. The goal to be envisioned is preventive medicine for every American by 1970 at least." The argument they present to life insurance companies, which constitute their first line of attack, is that if fire insurance companies can spend, as they do, an average of 5 per cent of their gross premium on fire prevention education, life insurance companies should be able to spend one per cent of premium income on preventive medicine.

The immediate objectives as outlined by Mr. Wilford are:

1. To educate the medical profession in the necessity and administration of successful periodic examinations.
2. To raise $500,000 annually for expansion of chairs of preventive medicine in American medical colleges.
3. To study and perfect periodic medical examinations.
4. To urge the life insurance industry to earmark money for the use of policy holders in health conservation. A goal of at least 100 million dollars annually has been set.
5. To keep the individual and the doctor relation on an American basis and to improve this relation constantly.

The pamphlet *How to Make Individual Preventive Medicine Economically Possible* and other information are available from Health Conservation Foundation, Wilford Building, Philadelphia 4, Pa.

MENTAL HYGIENE UNIT HONORS PEDIATRICIAN DR. ALDRICH

C. Anderson Aldrich, M.D., Director of the Rochester Child Health Institute of the Mayo Clinic, Rochester, Minn., has won the Lasker Award of the Na-

tional Committee for Mental Hygiene for 1948. The winner received on November 4 the fifth annual prize in this field from Dr. George Baehr, President of the New York Academy of Medicine, at the committee's 39th annual luncheon in New York. Dr. Aldrich was cited for "outstanding accomplishments in the education of the physician in the psychological aspects of the practice of medicine."

As organizer four years ago of the Rochester Child Health Institute, Dr. Aldrich designed a preventive psychiatric and "well-child" service for children in a community of 30,000. In conjunction with the Mayo Foundation, he developed a training program in pediatric mental health. The program was said to have expanded and improved existing local facilities instead of developing new agencies.

SONOMA'S NEW HOME

The Health Department of Sonoma County, California, serving about 85,000 persons, moved into its new home recently. *California Health* reports the building was made possible through the plans presented to the board of supervisors by the health officer, Edith Young, M.D. When an additional $5,000 was needed to complete construction the Elks Lodge stepped forward and later equipped the plant and dedicated it. It was officially opened with a community party given by the citizens.

Described as a spacious, light, H-shaped building, it is located on the county hospital grounds. One wing houses an auditorium and the headquarters of the county tumor board. It also has a fenced-in outdoor play area for children immediately adjacent to the child health conference waiting room.

PALO ALTO DECIDES TO COÖPERATE

Palo Alto, Calif., with a 1940 population of less than 20,000 recently voted to combine its health services with those of Santa Clara County. Louis Olsen, the former Palo Alto Health Officer, is now Assistant Health Officer of the county. The contract for joint services became effective on August 1 and was recommended by the California State Health Department. The County Health Department now serves more than 100,000 persons. San Jose with more than 75,000 population maintains its separate city health department.

TUBERCULOSIS MANUAL FOR PUBLIC HEALTH NURSES

The Massachusetts State Department of Health recently issued a manual on tuberculosis control for public health nurses. The 94 page loose-leaf publication, prepared by Helen C. Reilly and Beatrice H. Ditto of the Bureau of Public Health Nursing, with the collaboration of Dr. Alton S. Pope of the Division of Tuberculosis, has a special chapter on the mass surveys that have been conducted in coöperation with the Massachusetts Tuberculosis League since 1942. Single copies are available for limited distribution.

AMERICAN UNION OF INDUSTRIAL MEDICINE

The Association has been informed that at the last meeting of the Argentine Congress of Industrial Medicine held in Buenos Aires in May, 1948, it was decided to establish the Union Americana de Medicina del Trabajo (American Union of Industrial Medicine) and that already eleven American countries are affiliated in the Union.

The purpose of the Union is to study the specialty of industrial medicine, to aid in propagating knowledge among medical and technical persons of the Americas, to stimulate the interchange of scientific publications and information, and to organize in alternate years an American Congress in one or another of the American countries.

The permanent General Secretary

named at the last meeting is Dr. Jose Pedro Reggi of Argentina, Arenales 981, Buenos Aires. A magazine, *Medicina del Deporte y del Trabajo,* is being published and a library has been established in this specialty.

According to Dr. Reggi, plans are being laid for the next meeting to be designated as the First American Congress of Industrial Medicine, to be held in Buenos Aires during October, 1949.

The American Union of Industrial Medicine wishes to establish personal and scientific relations with the members of the American Public Health Association, and they have filed with the Association office this information regarding the organization and constitution of the Union. North Americans are invited to attend the First Congress.

UNITED MINE WORKERS OF AMERICA WELFARE AND RETIREMENT FUND ALLOCATES REGIONAL STAFF

The United Mine Workers of America Welfare and Retirement Fund, Washington, of which Warren F. Draper, M.D., formerly of the U. S. Public Health Service, is Executive Medical Officer, announced recently the location selected for the headquarters and area medical offices of the Welfare and Retirement Fund as follows:

Asa Barnes, M.D., Louisville, Ky.
Deane F. Brooke, M.D., Beckley, W. Va.
William A. Dorsey, M.D., Denver, Colo.
Leslie A. Falk, M.D., Johnstown, Pa.
Lorin E. Kerr, M.D., Morgantown, W. Va.
John T. Morrison, M.D., Charleston, W. Va.
Herbert Scheffer, M.D., Birmingham, Ala.
Cecil A. Z. Sharp, M.D., St. Louis, Mo.
John D. Winebrenner, M.D., Knoxville, Tenn.

According to the *Washington Report on the Medical Sciences,* the UMWA Welfare and Retirement Fund is concerned in the main with pensions, disability benefits, death benefits, and medical, health, and hospital services for the members of the United Mine Workers of America. It has undertaken to provide a prepaid form of hospital service and medical attention in various districts and in all local unions. The Welfare and Retirement Fund is utilizing present medical and hospital facilities under conditions which aim at high standards of service.

DR. DOULL JOINS AMERICAN LEPROSY FOUNDATION STAFF

James A. Doull, M.D., Dr.P.H., Medical Director, U. S. Public Health Service, Washington, D. C., has been detailed, effective November 1, to the Leonard Wood Memorial (American Leprosy Foundation) which has headquarters at One Madison Avenue in New York City. The office of the Medical Director will be located in the Federal Security Building (Room 5721), Washington, D. C. pending establishment of permanent headquarters in Washington. Dr. H. Windsor Wade, formerly Medical Director of the Memorial, has been forced to relinquish the position because of ill health but will remain on the staff as Associate Director and Pathologist. Dr. John Hanks will continue in charge of the Memorial's Bacteriology Laboratory in the Department of Bacteriology and Immunology at Harvard. Dr. Ricardo S. Guinto will continue as epidemiologist.

STATE AND TERRITORIAL HEALTH OFFICERS

The Annual Meeting of the State and Territorial Health Officers Association was held in Washington in the middle of November and the following new officers were elected:

President—R. H. Hutcheson, M.D., Nashville, Tenn.
Vice-President—Wilton L. Halverson, M.D., San Francisco, Calif.
Secretary-Treasurer—R. L. Cleere, M.D., Denver, Colo.
Vlado R. Getting, M.D., Boston, Mass., and Carl N. Neupert, M.D., Madison, Wis., were elected to the Executive Committee.

According to the *Washington Report*

on the Medical Sciences, the Association resolved that the most urgent legislation in their particular field to confront the new Congress will be federal subsidies of local public health units throughout the country and the establishment of a Department of Health, Education and Security, headed by a Secretary as a Cabinet member.

The following resolutions were adopted:

WHEREAS the American Public Health Association has assumed proper leadership, through its Merit System Service, in developing examination services for the selection of professional public health personnel and has, in this process, made use of the skills and experience of public health workers throughout the country; and

WHEREAS the selection of the most highly qualified of the candidates for service in public health is basic to the effective functioning of public health programs; and

WHEREAS the effectiveness of this program is evidenced by the fact that 75 per cent of the states have made successful use of these examinations; and

WHEREAS there is no other source for such services available to health authorities; and

WHEREAS the Annual Service Plan has been developed by the Merit System Service to permit the wider use of examinations and has been endorsed by the Public Health Service, the Children's Bureau, and the Executive Board of the American Public Health Association; therefore be it

RESOLVED:

1. That the Association of State and Territorial Health Officers record their endorsement of the examination program of the Merit System Service of the American Public Health Association; and
2. That they affirm their belief in the effectiveness of these examinations as one important tool in the selection of qualified public health workers; and
3. That they urge participation by State Health Departments in the Annual Service Plan—not only so that individual states may benefit from the use of these examinations, but also so that the program itself may have the support which is necessary to insure its continued development and extension.

A second resolution follows:

WHEREAS human resources are the nation's greatest asset; and

WHEREAS the security and well-being of our country cannot be achieved unless basic public health services are available in every locality through adequately staffed and properly equipped local public health units; and

WHEREAS at present more than 40 million persons in the United States live in areas not served by local public health units and less than 10 million persons live in areas served by units which meet basic minimum public health standards; and

WHEREAS it is well known that annually thousands of persons die unnecessarily from causes that could have been prevented; and

WHEREAS many areas cannot with their own resources support local public health units staffed and equipped to the extent necessary for the provision of the basic public health services essential to the well-being of the community; now therefore, be it

RESOLVED that the provision of adequate local health services is of paramount importance and that it be given highest priority in improving the health of the people; and further be it

RESOLVED that the Association of State and Territorial Health Officers urge the states to

1. Enact legislation enabling the establishment of county and multi-county units where such authority does not now exist;
2. Develop state-wide plans for local health unit coverage;
3. Develop state financial assistance plans for equitable allocation of funds to local health units;
4. Extend every possible assistance to medical and nursing schools in the teaching of preventive medicine and public health to undergraduate students in order to encourage their interest in public health as a career;
5. Assist in the development of local health councils;
6. Develop competent field training centers; and be it further

RESOLVED that the Association of State and Territorial Health Officers urge the support of federal legislation for the provision of

1. Financial assistance to State Health Departments for developing and maintaining local public health units organized to provide basic full-time public health services in all areas of the Nation, and, in the training of all types of personnel for local public health unit work; and be it further

RESOLVED that the Public Health Service, the Children's Bureau, all State Health Departments, voluntary organizations, and the general public be urged to support such legislation.

PROGRESS UNDER THE FEDERAL HOSPITAL CONSTRUCTION ACT

The U. S. Public Health Service Division of Hospital Facilities has reported progress under the Hill-Burton Act up to the end of October, 1948. Five hundred forty applications have been approved by the Surgeon General, of which there are now under construction more than 100.

According to the *Washington Report on the Medical Sciences*, the total estimated cost of the 540 is in excess of 301 million dollars, of which the federal share will be approximately 92 million. All but 124 of the projects are new general hospitals or additions to present plans. The remainder consists of 27 mental hospitals, 16 for tuberculosis, 9 for chronic disease, 66 health centers, 3 nurses' homes and 3 health department laboratories. It is said that two-thirds of the prospective new general hospitals will be erected in towns of less than 5,000 population and that only 15 are intended for cities of 50,000 population or more.

DR. ANDREWS TO IRAN ON MEDICAL MISSION

Justin Andrews, Sc.D., Executive Officer, Communicable Disease Center, Atlanta, has been borrowed by the U. S. State Department to make a one month survey of the worsening malaria problem in Iran, which requested the study and will foot the bill. Dr. Andrews' job will be to formulate a malaria abatement program, then return and marshal an American force which would go to Iran, probably in March, for the purpose of training native technicians in malaria control techniques. The plan is to have the campaign under full steam by midsummer. Dr. Andrews possesses wide experience as a malaria eradication expert, having devoted his Army career to the work in Mediterranean and Southwest Pacific areas during World War II. He was temporarily detached from his regular duties to take the assignment to Iran.

NATIONAL GASTROENTEROLOGICAL ASSOCIATION 1949 AWARD CONTEST

The National Gastroenterological Association announces its Annual Cash Prize Award of $100 and a Certificate of Merit for the best unpublished contribution on Gastroenterology or allied subjects. Certificates will also be awarded those physicians whose contributions are deemed worthy. The award will be made at the Annual Convention Banquet of the Association in October, 1949.

Contestants residing in the United States must be members of the American Medical Association. Those residing in foreign countries must be members of a similar organization in their own country. All entries for the 1949 prize should be limited to 5,000 words, be typewritten in English, prepared in manuscript form, submitted in five copies accompanied by an entry letter, and must be received not later than April 1, 1949. Entries should be addressed to the National Gastroenterological Association, 1819 Broadway, New York 23, N. Y.

MASSACHUSETTS PUBLIC HEALTH ASSOCIATION

At the annual dinner meeting of the Massachusetts Public Health Association, held at the University of Massachusetts in June, the following officers were elected:

President: Vlado A. Getting, M.D., State Commissioner of Public Health
First Vice-President: Mary E. Spencer, Ph.D.
Second Vice-President: Leon A. Bradley, Ph.D., Head, Department of Bacteriology and Public Health, University of Massachusetts
Treasurer: Catherine Atwood
Secretary: S. L. Skvirsky, M.D.
Executive Secretary: Mrs. Elizabeth K. Caso, Harvard School of Public Health, 695 Huntington Avenue, Boston
Section chairmen:
Health Officers—Alfred L. Frechette, M.D.

Laboratory—John M. Newell
Food and Nutrition—Stuart B. Foster, Ph.D.
Sanitation—Robert E. Bemis
Maternal and Child Health—Stuart S. Stevenson, M.D.
Public Health Nursing—Alice C. MacKinnon, R.N.
Health Education—Beryl J. Roberts, M.A.

The next annual meeting will be held at Amherst in conjunction with the third annual Massachusetts Public Health Conference June 15–17, 1949.

NORTH DAKOTA PUBLIC HEALTH ASSOCIATION

The Fifth Annual Meeting of the North Dakota Public Health Association, an Affiliated Society of the A.P.H.A., was held in Minot on October 28 and 29. The two day meeting included a joint meeting with the North Dakota Health Officers Association and the Northwest District Medical Society, and sectional meetings of sanitarians, nurses, laboratory personnel, and lay persons. The registered attendance was 124.

The following new officers were elected:

President—Melvin E. Koons, Grand Forks
Vice-President—Everett Lobb, Fargo
Treasurer—Milla Tollefson, Bismarck
Secretary—Margaret L. Watts, Bismarck

Bernadine Cervinski was elected to represent the North Dakota society on the Governing Council of the American Public Health Association.

PERSONALS

VESTA BOWDEN, R.N.,† formerly Maternal and Child Health Nursing Consultant and Assistant Director of the Public Health Nursing Section, was appointed Director of the Public Health Nursing Section of the Colorado State Health Department, Denver.

GEORGE R. COWGILL, Ph.D.,* Professor of Nutrition, Yale University, New Haven, Conn., was presented recently with the Fourteenth Annual Scientific Award of the Grocery Manufacturers Association of America, Inc., "in recognition of his contributions to the science of nutrition, particularly for his research in the functional rôle of Vitamin B_1, his success as a teacher of young biochemists, and his editorial work for the Journal of Nutrition."

GERALD J. COX, Ph.D., has been appointed Director of Dental Research in the University of Pittsburgh's School of Dentistry, Pittsburgh, Pa. He has held the position of research chemist with the Corn Products Refining Company, Argo, Ill., since 1944.

MAJOR GENERAL FRANCOIS DAUBENTON has been named chief of the WHO mission to Ethiopia, succeeding D. A. MESSINEZY,* assigned to WHO's secretariat in Geneva. General Daubenton is former Director of the Medical Services of the Royal Netherlands Army.

EARL DEVENDORF,* of Schenectady, N. Y., who for more than 20 years has been Assistant Director of the Bureau of Environmental Sanitation, New York State Department of Health, Albany, has been promoted to become Director of the Bureau, succeeding CHARLES A. HOLMQUIST, of Albany who retired October 31.

WILLIAM J. DOYLE, M.D., formerly in private practice and county health officer in Montana, has been appointed as Deputy District Health Officer, Washington-Yamhill District Health Department in Oregon.

JOHN M. GLENN,† the first Executive Director of the Russell Sage Foundation and now a Trustee, was honored by a number of friends and associates at an informal dinner at the Harvard Club in New York City, October 26, on the occasion of his approaching 90th birthday.

PROFESSOR EDMOND GRASSET, the Director of the new Institute of Hygiene

in Geneva, Switzerland, has been visiting the schools of public health in North America as the guest of the Rockefeller Foundation.

RILEY H. GUTHRIE, M.D., on November 1, became special mental hospital consultant, Mental Hygiene Division, U. S. Public Health Service, Washington, D. C. He will conduct surveys of mental hospitals and provide consultive services regarding hospital administration, care of patients, and other problems of mental hospitals to state governors and administrators of state mental hospitals.

RUTH BORING HOWARD, M.D., is the new Director of Maternal and Child Health Section of the Colorado State Health Department, Denver. Since 1942, she has been in the U.S.P.H.S. with the rank of Surgeon, and among her assignments was that of Medical Director in a Venereal Disease Rapid Treatment Center.

BRIG. GEN. EDGAR ERSKINE HUME, M.C., U.S.A.,* received the Gorgas Award in San Antonio, Tex., on November 12, at the meeting of the Association of Military Surgeons in recognition of his services in the Medical Corps since 1916 and with special reference to the control of typhus fever.

WILLIAM KILOH, Executive Secretary of the Humboldt County, California, Tuberculosis and Health Association, has resigned to accept a position with the Alaska Health Department.

LLEWELLYN E. KLING, M.D., M.P.H.,† has resigned as Medical Director of the Planned Parenthood Federation, New York, N. Y., to become Associate Professor of Public Health Education and Head of the Division of Public Health Education, Columbia University School of Public Health, New York. Dr. Kling served as a county health officer in Nebraska, was with the U.S.P.H.S. during the war. He is a graduate in public health from the Columbia School.

AMEDEE S. LANDRY, Senior Chemist, Division of Industrial Hygiene, New Hampshire State Health Department, has resigned to become Industrial Hygiene Chemist with the Institute of Inter-American Affairs. Mr. Landry will be assigned to the Peruvian Government and will be stationed at Lima, Peru.

OSCAR LOTZ, M.D., Executive Secretary of the Wisconsin Anti-Tuberculosis Association, was named President of the Mississippi Valley Conference on Tuberculosis at the Conference's annual meeting in September.

HELEN LOVELL, on October 1 was appointed Nutritionist for the Iowa State Department of Health, Des Moines. She recently completed her work on her Master of Science degree at the University of Nebraska, Lincoln.

ESCHSCHOLTZIA LUCIA, PH.D.,* Consultant in Statistical Research, and former Professor of Biometry at the University of California, is retiring from the California State Department of Public Health, Los Angeles, after 2 years of service.

ELEANOR J. MACDONALD,* Research Statistician with the Division of Cancer and Other Chronic Diseases, Connecticut State Health Department, Hartford, left October 1 to become Research Statistician at the M.D. Anderson Hospital for Cancer Research, Houston, Tex.

C. A. MCINTYRE, M.D., has begun his duties as Health Officer for the San Juan Basin Health Department including Archuleta, Dolores, LaPlata, Montezuma, and San Juan Counties in Colorado.

MARY E. PARKER, R.N.,* has been promoted from Assistant Director, Bureau of Public Health Nursing, New York State Department of Health,

* Fellow A.P.H.A.
† Member A.P.H.A.

Albany, to become Director, effective January 1, succeeding MARION W. SHEAHAN, R.N.,* retired. Miss Parker took her postgraduate work at Yale and at the University of Minnesota.

MARION W. SHEAHAN, R.N.,* on December 31, 1948, retired as Director of the Bureau of Public Health Nursing in the New York State Department of Health. Miss Sheahan has served for 28 years and as Director since 1932. She is immediate Past-President of the N.O.P.H.N., and has served as Vice-President of the A.P.H.A.

EDMOND B. SINCLAIR, M.D., was appointed as crippled children's physician with the Connecticut State Department of Health, Hartford. Dr. Sinclair studied at the Yale University School of Medicine, Department of Public Health, for the academic year 1947–1948.

MARY E. SOULES, M.D.,† North Dakota State Health Department, is now Deputy Health Officer, Multnomah County (Oregon) Health Department.

JAMES H. STEELE, D.V.M.,† of the staff of the U. S. Public Health Service Communicable Disease Center, was appointed as Chairman of the U. S. Delegation to the Second Inter American Congress on Brucellosis held in Argentina, November 17–26.

KEITH T. SWARTZ, PH.D., research specialist on canned foods, has joined the staff of the Animal Products Branch of the Quartermaster Food and Container Institute for the Armed Forces, Chicago.

HENRY C. SWEANY, M.D.,† of Chicago, was awarded the 1948 Dearholt Medal, given annually by the Mississippi Valley Conference on Tuberculosis for outstanding work in tuberculosis control. Dr. Sweany is Medical Director of Research, Municipal Tuberculosis Sanitarium, Chicago, and served for 5 years as a member of the N.T.A.'s Committee on Medical Research.

L. E. TAYLOR, of the Detroit Edison Company, became the new President of the Illuminating Engineering Society, New York, N. Y., at the 1948 Conference of the Society in Boston in October.

ALEXANDER WITKOW, M.D.,* formerly Director of Local Health Administration, West Virginia State Health Department, became Health Commissioner of Worcester, Mass., on October 1.

ALASKA HEALTH DEPARTMENT — NEW STAFF MEMBERS:

PENELOPE EASTON, M.P.H.,† Dietary Consultant, to advise hospitals, institutions, and schools on nutrition problems.

LAURIS S. PARKER, Engineering Aide, to assist in general sanitation activities and the preparation of sanitation educational materials at the Juneau office.

ALFRED BAKER,† Sanitarian, for the Ketchikan area. He served for 3 years each in the Navy Medical Corps and the Fisheries Research Laboratory at Ketchikan.

GERTRUDE HANSEN, Public Health Nurse, to conduct itinerant nursing services from Haines. She has been with the Milwaukee City Health Department for the past 12 years.

MARY BRIMBERRY,† Public Health Nurse, to serve in the Interior. She spent 13 years with the Chicago Visiting Nursing Association.

GEORGIA STATE HEALTH DEPARTMENT (ATLANTA)—APPOINTMENTS:

LILLIAN M. BISCHOFF,† recently returned from 2½ years as chief nurse in the WHO I.C. Field Mission to Ethiopia, has been appointed Associate Director in the

* Fellow A.P.H.A.
† Member A.P.H.A.

State Health Department Division of Public Health Nursing.

DOROTHY F. JOHNSTON, Assistant Nurse Officer, U.S.P.H.S., has been transferred from Alto Rapid Treatment Center to the Georgia State Health Department, Venereal Division, as Consultant.

LITA L. KORBE, recently Director of Public Health Nursing, University of Georgia, has been appointed as Regional Public Health Nursing Consultant in the State Health Department.

Deaths

JOSEPH F. BREDECK, M.D., D.P.H.,† died October 4. Dr. Bredeck was Health Commissioner of St. Louis, Mo. (Health Officers Section.)

ANDREW G. DUMEZ, M.D., a member of the Maryland State Council on Medical Care since the appointment of that group in 1945, died suddenly on September 27. Dr. DuMez, who was appointed to the council as a representative of the Maryland Pharmaceutical Association, was Dean of the University of Maryland School of Pharmacy and a Past-President of the American Pharmaceutical Association.

WILLIAM A. EVANS, M.D., former Health Commissioner of Chicago, and President of the Chicago Medical Society, and for 23 years editor of the Chicago Tribune's "How to Keep Well" column, died November 8 at the age of 83.

JOHN TEMPLE GLENN, JR.,† head of the Production Laboratory of the Sharp and Dohme Laboratories in Pennsylvania, died last summer after a long illness. (Laboratory Section.)

JESSE LYNN MAHAFFEY, M.D.,† New Jersey State Health Director from 1931 until the reorganization of the Health Department in 1947 under New Jersey's new Constitution, died November 1. He was Acting State Health Commissioner of the reorganized department until June 2, when DANIEL BERGSMA, M.D.,* was sworn in as Commissioner. (Health Officers Section.)

MARY ADELAID NUTTING, internationally known leader in nursing education and Professor Emeritus of Teachers College, Columbia University, New York N. Y., since 1925, died October 3 in her 90th year after a prolonged illness. Her home was at Emerson Hall, Teachers College, Columbia University.

DON C. PETERSON, M.D., M.P.H.,* State Registrar of Vital Statistics, Tennessee State Department of Health, Nashville, died June 13, 1948. (Vital Statistics Section.)

CONFERENCES AND DATES

American College of Physicians. New York, N. Y. March 28–April 1.

American Association of Schools of Social Work. Boston, Mass. January 26–29.

American Water Works Association:

Annual Mid-winter Luncheon Meeting of the New York Section, held jointly with the New York State Sewage Works Assn. and the Sanitary Engineering Division of the American Society of Civil Engineers. Hotel Pennsylvania, New York, N. Y., January 21.

New Jersey Section Luncheon Meeting. Essex House, Newark, N. J., February 17.

Association of Military Surgeons of the United States New York Academy of Medicine, 2 East 103rd Street, New York, N. Y. Monday evening, January 31, 8:30 P.M.

Commonwealth and Empire Health and Tuberculosis Conference. Central Hall, London, England. July 5–8.

National Cancer Conference. Memphis, Tenn. February 25–27.

National Society for the Prevention of Blindness. New York, N. Y. March 16–18.

National Tuberculosis Association. Detroit, Mich. Week of May 2.

Ninth International Heating and Ventilating Exposition. International Amphitheater, Chicago, Ill. January 24–28.

Pest Control Operators Conferences:

Canadian. University of Montreal, P.Q., Canada. February 14–16.

Eastern. University of Massachusetts, Amherst, Mass. January 31–February 2.

Pacific. University of California, Berkeley, Calif. January 31–February 2.

Purdue. Purdue University, Lafayette, Ind. February 7–11.

Southern. Louisiana State University, Baton Rouge, La. January 27–29.

Southern Branch, American Public Health Association. Baker Hotel, Dallas, Tex. April 14–16.

Western Branch. American Public Health Association. Biltmore Hotel, Los Angeles, Calif. May 30–June 1.

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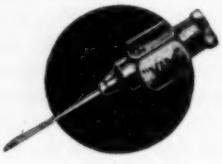

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DIAGNOSTIC PROCEDURES IN VIRUS AND RICKETTSIAL DISEASES

This handbook, prepared by the Committee on Virus and Rickettsial Diseases of the Laboratory Section and edited by the Chairman of the Committee, Thomas F. Francis, Jr., M.D., details procedures which can be employed and interpreted by laboratory workers in the diagnosis of sixteen virus diseases. The diseases selected are essentially those of man for which procedures are available for use in a diagnostic laboratory.

Each of the sixteen sections has been written by an authority in the field. Much of the experience of each author has been contributed to his chapter and as a result the entire volume constitutes a compilation of methods proved by actual experience.

The volume has grown out of a recognized need for a publication of collected methods and has developed from a round table presentation at the Annual Meeting of the American Public Health Association in 1946. The methods are not presented as standards but are those most currently useful.

Members of the committee who have contributed and their subjects are as follows:

Psittacosis
K. F. Meyer, Ph.D., M.D. and B. Eddie, Dr.P.H.

Lymphogranuloma Venereum
Geoffrey Rake, M.B.

Trachoma and Inclusion Blennorrhea
Phillips Thygeson, M.D.

Variola and Vaccinia
Robert F. Parker, M.D.

Influenza
George K. Hirst, M.D.

Primary Atypical Pneumonia
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